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Michigan
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Why should I use KANTREX® Injection* when there are so many other antibiotics available?

Because KANTREX Injection is bactericidal to a wide variety of organisms, including many that are highly resistant to the other antibiotics[3,4,10,12,13,17,18,20,21,23,24,25,27,30,33,35,37]

—organisms such as *Staph. aureus, Staph. albus, A. aerogenes, E. coli, H. pertussis, K. pneumoniae, Neisseria* sp., *Shigella, Salmonella* and many strains of *B. proteus.*

Q *But if I use* KANTREX *Injection, won't that help make bacteria resistant to it also?*

Next page, please . . . . . .

* Kanamycin sulfate injection (Bristol)

Q *But if I use* KANTREX *Injection, won't that help make bacteria resistant to it also?*

A A very good question, but it is reassuring to note that in almost two years of clinical use of KANTREX for the treatment of infections for which it is recommended, the emergence of KANTREX-resistant bacterial populations has not been a problem.

Q *My impression is that* KANTREX *is just another neomycin. Isn't that so?*

A Indeed not. The only thing KANTREX and neomycin have in common is a similar antimicrobial spectrum. Otherwise, they're very different: they have different chemical structures; the toxicity of KANTREX is "much less than that of neomycin"[14]; and clinically, KANTREX Injection is practical for systemic administration routinely, while neomycin is not.

Q *You mean that* KANTREX *Injection doesn't have the nephrotoxicity of neomycin?*

A Precisely. It's true that when KANTREX Injection is used, urinary casts – even slight albuminuria or microscopic hematuria – may appear, especially in poorly hydrated patients, but this does not reflect any progressive damage to the kidneys. These signs promptly disappear on adequate hydration or termination of therapy.

Q *Then why do you recommend reduced dosage in patients with renal impairment?*

A Because renal impairment causes an excessive accumulation of KANTREX in the blood and tissues, when usual doses are administered. Since KANTREX Injection is excreted entirely by the kidneys, renal impairment leads

to unnecessarily high and prolonged blood levels; and such excessive concentrations increase the risk of ototoxicity.

Q *Is that why we see reports of patients developing hearing loss during* KANTREX *Injection therapy?*

A Yes. A study of the few reported cases in which patients have suffered impaired hearing will show that in every instance they had pre-existing or concurrent renal impairment, yet received usual or excessive doses of KANTREX Injection. Dosage recommendations for KANTREX Injection emphasize that in patients with renal dysfunction, adequate serum levels can be achieved with a fraction of the dose suggested for patients with normal kidney function – with minimal risk of ototoxicity.

Q *Since urinary tract infections are often accompanied by renal impairment, does that mean I shouldn't use* KANTREX *Injection in such conditions?*

A Not at all. With proper precautions, KANTREX Injection is an excellent drug for the treatment of urinary tract infections, especially those due to *Proteus*, *A. aerogenes* and *E. coli*, even when renal impairment is present.

Q *What are the "proper precautions" in a patient with impaired renal function?*

A The package literature covers them in detail. First, the daily dose should be reduced in such a patient. Then, if he is going to receive KANTREX Injection for 7 days or more, a pre-treatment audiogram should be done, and it should be repeated at appropriate intervals during therapy. If tinnitus or subjective hearing loss develops, or if followup audiograms show significant loss of high frequency response, KANTREX therapy should be discontinued. However, therapy for 7 days or more

is seldom required because the clinical response to KANTREX Injection is so rapid.

Q *Why do you put so much emphasis on* KANTREX'S *"rapid action"? Every antibiotic I've heard about is supposed to be "rapid acting."*

A There is such an abundance of clinical evidence about "rapid acting" that it takes KANTREX Injection out of the "supposed-to" class.[1,2,3,7,8,9,11,15,16,19,21,22,26,29,32,33] Remember, the effectiveness of KANTREX Injection therapy can usually be appraised in 24 to 36 hours. That's definite evidence of rapid action. In fact, one group of investigators reported that "the rapidity with which bacteria are killed by this agent is reflected by the promptness of the clinical response."[29]

Q *Does* KANTREX *Injection cause blood dyscrasias?*

A In extensive clinical and toxicity studies by numerous investigators, as well as almost two years of general use, not a single instance of such toxicity has been reported.

Q *Can I administer* KANTREX *Injection in any other way than by the intramuscular route?*

A Yes. While it's usually given intramuscularly, other routes are practicable: intravenous, intraperitoneal, by aerosol, and as an irrigating solution. Complete instructions are included in the package insert.

Q *So you think I ought to use* KANTREX *Injection as my first choice antibiotic in staph and gram-negative infections?*

A Yes – because all evidence to date indicates that it is bactericidal against a wide range of organisms...rapid acting...does not encourage development of bacterial resistance...is well tolerated in specified dosage...and has not caused any blood dyscrasias.

KANTREX® CAPSULES

for local gastrointestinal therapy... not for systemic infections

Q *Why can't I use* KANTREX *Capsules for systemic medication?*

A Because there is only negligible absorption of KANTREX from the gastrointestinal tract.[3,5,6,8,28,34] Thus, capsules cannot provide effective blood levels.

Q *Then what are* KANTREX *Capsules used for?*

A Preoperative bowel sterilization, and local treatment of intestinal infections due to kanamycin-sensitive organisms.

Q *I've been using neomycin for preoperative bowel sterilization. Why should I switch to* KANTREX *Capsules?*

A Because KANTREX has been rated as "superior to neomycin" for this purpose.[6] It provides rapid and satisfactory control of coliforms, clostridia, staphylococci and streptococci; yeasts do not proliferate; stool concentrations of the drug are exceptionally high; and nausea, vomiting or intestinal irritation have not been observed.[5,6]

Q *What advantages do* KANTREX *Capsules offer me in the treatment of intestinal infections?*

A A high degree of effectiveness against most of the pathogens responsible for such infections: *Salmonella, Shigella, Staph. aureus, E. coli* and *Endamoeba histolytica.* Moreover, their use has been "remarkably free of any side effects."[31]

KANTREX®

INJECTION KANAMYCIN SULFATE INJECTION

INDICATIONS

Infections due to kanamycin-sensitive organisms, particularly staph or "gram-negatives": genito-urinary infections; skin, soft tissue and post-surgical infections; respiratory tract infections; septicemia and bacteremia; osteomyelitis and periostitis.

DOSAGE: INTRAMUSCULAR ROUTE

Recommended daily dose is 15 mg. per kg. of body weight, in 2 to 4 divided doses.

For intramuscular administration, KANTREX Injection should be injected deeply into the upper outer quadrant of the gluteal muscle.

TOXICITY

When the recommended precautions are followed, the incidence of toxic reactions to KANTREX is low. In well hydrated patients under 45 years of age with normal kidney function, receiving a total dose of 20 Gm. or less of KANTREX, the risk of ototoxic reactions is negligible.

In patients with renal disease and impaired renal function, the daily dose of KANTREX should be reduced in proportion to the degree of impairment to avoid accumulation of the drug in serum and tissues, thus minimizing the possibility of ototoxicity. In such patients, if therapy is expected to last 7 days or more, audiograms should be obtained prior to and during treatment. KANTREX therapy should be stopped if tinnitus or subjective hearing loss develops, or if audiograms show significant loss of high frequency response.

OTHER ROUTES OF ADMINISTRATION

KANTREX should be used by intravenous infusion only when the intramuscular route is impracticable. KANTREX can also be employed for intraperitoneal use, aerosol treatment, and as an irrigating solution. See package insert for directions.

PRECAUTIONS

Use of antibiotics may occasionally result in overgrowth of non-sensitive organisms. If superinfection appears during therapy, appropriate measures should be taken.

SUPPLY

Available in rubber-capped vials as a ready-to-use sterile aqueous solution in two concentrations (stable at room temperature indefinitely):

KANTREX Injection, 0.5 Gm. kanamycin (as sulfate) in 2 ml. volume.
KANTREX Injection, 1.0 Gm. kanamycin (as sulfate) in 3 ml. volume.

CAPSULES (for local gastrointestinal therapy; not for systemic medication)

INDICATIONS AND DOSAGE

For preoperative bowel sterilization: 1.0 Gm. (2 capsules) every hour for 4 hours, followed by 1.0 Gm. (2 capsules) every 6 hours for 36 to 72 hours.

For intestinal infections: Adults: 3.0 to 4.0 Gm. (6 to 8 capsules) per day in divided doses for 5 to 7 days. Infants and children: 50 mg. per kg. per day in 4 to 6 divided doses for 5 to 7 days.

PRECAUTION

Preoperative use of KANTREX Capsules is contraindicated in the presence of intestinal obstruction. Although only negligible amounts of KANTREX are absorbed through intact intestinal mucosa, the possibility of increased absorption from ulcerated or denuded areas should be considered.

SUPPLY

KANTREX Capsules, 0.5 Gm. kanamycin (as sulfate), bottles of 20 and 100.

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Cancer Comment

This column is sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan

WHAT IS THE MCCC?

The Michigan Cancer Coordinating Committee was formed in 1953 to unify and help advise the several individual agencies in the state whose efforts are directed toward the control and eventual elimination of Carcinoma.

The Committee is composed of representatives of the following groups:

American Cancer Society, Michigan Division.—L. E. Holly, M.D., C. Allen Payne, M.D., and Mr. Russell E. Bowers.

American Cancer Society. Committee for Southeastern Michigan.—H. M. Nelson, M.D.

Michigan Cancer Foundation.—Mr. Charles F. Arnold.

Michigan Department of Health.—John A. Cowan, M.D.

Michigan Health Officers Association.—Ralph Tenhave, M.D.

Michigan State Dental Association.—B. E. Luck, D.D.S.

Michigan State Medical Society.—H. M. Pollard, M.D., G. S. Wilson, M.D., J. W. Hubly, M.D., and W. A. Hyland, M.D.

Mr. William Burns of the Medical Society acts as Secretary for the Committee.

Meetings are held as often as required, usually three or four times a year, either in Lansing or Detroit.

Two of the operations which the committee has sponsored are the Anti-Quackery program and the re-organization and stimulation of the Michigan Central Cancer Registry. You have, no doubt, seen the Anti-Quackery exhibits and literature distributed by the committee. The demand for the literature has exceeded, by many times, our original expectations.

The Michigan Central Cancer Registry was established as an aid to professional education and research, but has been expanded by additional services and functions to a total Registry program. With the opportunity to stimulate and serve the research programs, the cytology and cancer detection programs, as well as the hospital cancer registry program of the state, the Michigan Central Cancer Registry represents a potential cancer control facility that is unequalled anywhere in the United States today.

The MCCC is an effective combination of groups that are basically organized for service, and those best fitted to give professional advice and technical direction to the activities.

Thus, we have the American Cancer Society and the Michigan Cancer Foundation equipped and staffed to raise funds and to provide services such as public education, free dressings, and volunteer help in all of the Field Activities.

Working hand-in-hand are the Professional Groups—the Michigan Department of Health, the Michigan Health Officers Association, and the State Dental and Medical Societies—to constantly check the progress and direction of the work and to point out where it can be made more effective or suggest new forms of activity when the need arises.

Another important function of the Professional Group is the direction of work on professional education, providing speakers for local medical society meetings and material prepared at the professional level. In fact, since the MCCC has been organized it has practically taken over the activities of the Cancer Committee of the Michigan State Medical Society.

Also on the Committee are a few lay members —specialists in the non-medical professions, and businessmen whose outside contacts and broad experience may be drawn upon for help on special problems.

This then is the Michigan Cancer Coordinating Committee. Keep it in mind and do not hesitate to contact it if it can be of help. The Committee would appreciate having any suggestions or opportunities to make its work more effective or extensive. It is at your service—use it.

COLON CARCINOMA

Carcinoma of the colon is most commonly found between the ages of fifty and seventy with a slightly higher incidence in the male than in the female. The site most frequently involved, exclusive of the rectum which has the highest frequency, is in the recto-sigmoid and the sigmoid colon. The other areas involved in descending order of frequency are cecum, transverse, ascending and descending colon. The two flexure areas show about the same frequency as the descending colon.

When we appreciate the fact that sixty per cent of all colon malignancies occur in the lower sigmoid and rectum, the physician is faced with a very grave responsibility in the early diagnosis. The rectal carcinomas are diagnosed readily by digital examination and the use of the sigmoidoscope. No physical examination of any type is complete without at least a digital rectal examination.

The diagnosis of lesions above the rectum is best made by sigmoidoscopy and barium enema studies under fluoroscopic control.

(Continued on Page 1966)

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Medical Groups Attack Problem of Aged Patient

By PETER J. BAKER, *Michigan State University*

The growing problem of medical care for the aged is recceiving increased attention from medical and social groups, according to a Michigan State Medical Society official.

A. Hazen Price, M.D., of Detroit, chairman of the MSMS Geriatrics Committee, told the Nursing Home Administrators Conference at Michigan State University that our elderly sick certainly deserve better treatment than they have received in the past.

"The older citizens have contributed much through their ingenuity and diligence," he said. "We owe it to them to do everything possible to lessen their burden of illness."

Doctor Price pointed out that the American Medical Association had taken the initiative in 1957 in the formation of the Joint Council to Improve the Health Care of the Aged. Co-operating in this venture are the American Dental Association, the American Hospital Association, and the American Nursing Home Association.

The Joint Council is presently working on an active and aggressive program designed to meet the pressing health needs of our senior citizens.

One phase of this program concerns the expansion and improvement of health care facilities for the aged through the establishment of standards for nursing homes, procuring of more funds for chronic disease units and work with the legislators.

Another urgent need concerns the expansion of community health services for the aged, Doctor Price stated. Possibilities in this field include dental service in the home, visiting nurse services and various homemaker services.

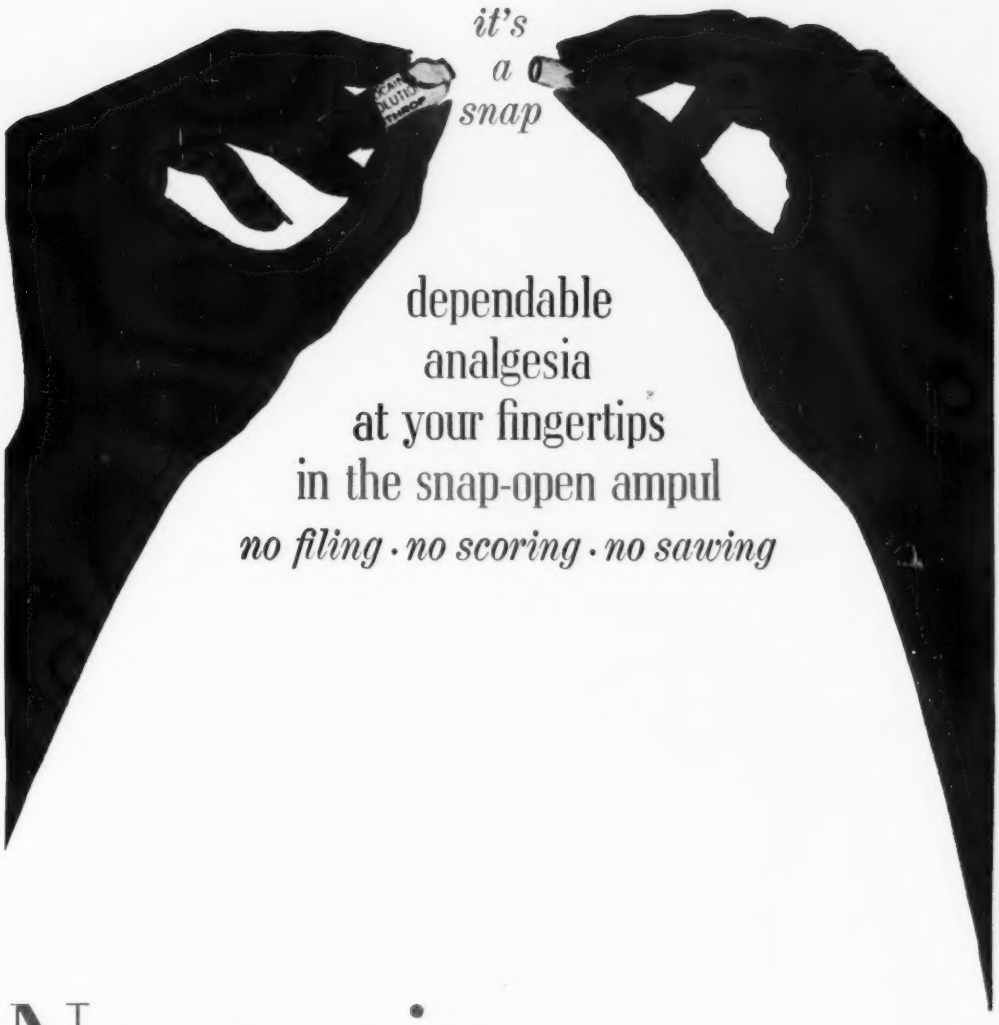
The third phase of this program lies in providing proper care for the aging who are mentally ill. He declared that, under proper supervision, many cases could be handled in foster homes rather than in overcrowded mental institutions.

Doctor Price said the next major objective being sought by the council is improved voluntary health insurance for older people. Coverage for aging citizens is now being developed and presently covers about six million persons over sixty-five years of age. He quoted estimates which predicted that 90 per cent of persons over sixty-five will be covered by this type of insurance by 1970.

The speaker pointed out that the scope of the problem is steadily increasing. Twenty years have been added to the American's life expectancy since 1900, he noted. The number of persons in the sixty to eighty bracket has quadrupled in that period, while the overall population has only doubled.

Dr. Price declared that with the use of new drugs and techniques, the life expectancy will be extended even farther. However the extra years simply add to the patient's economic and sociological problems.

The speaker suggested that city planners could help in this program by providing proper housing and recreational facilities; industry and labor could help by employing the older worker as long as he is able to work; churches could help by sponsoring various activity groups; and schools could provide adult education and instruction in the crafts.



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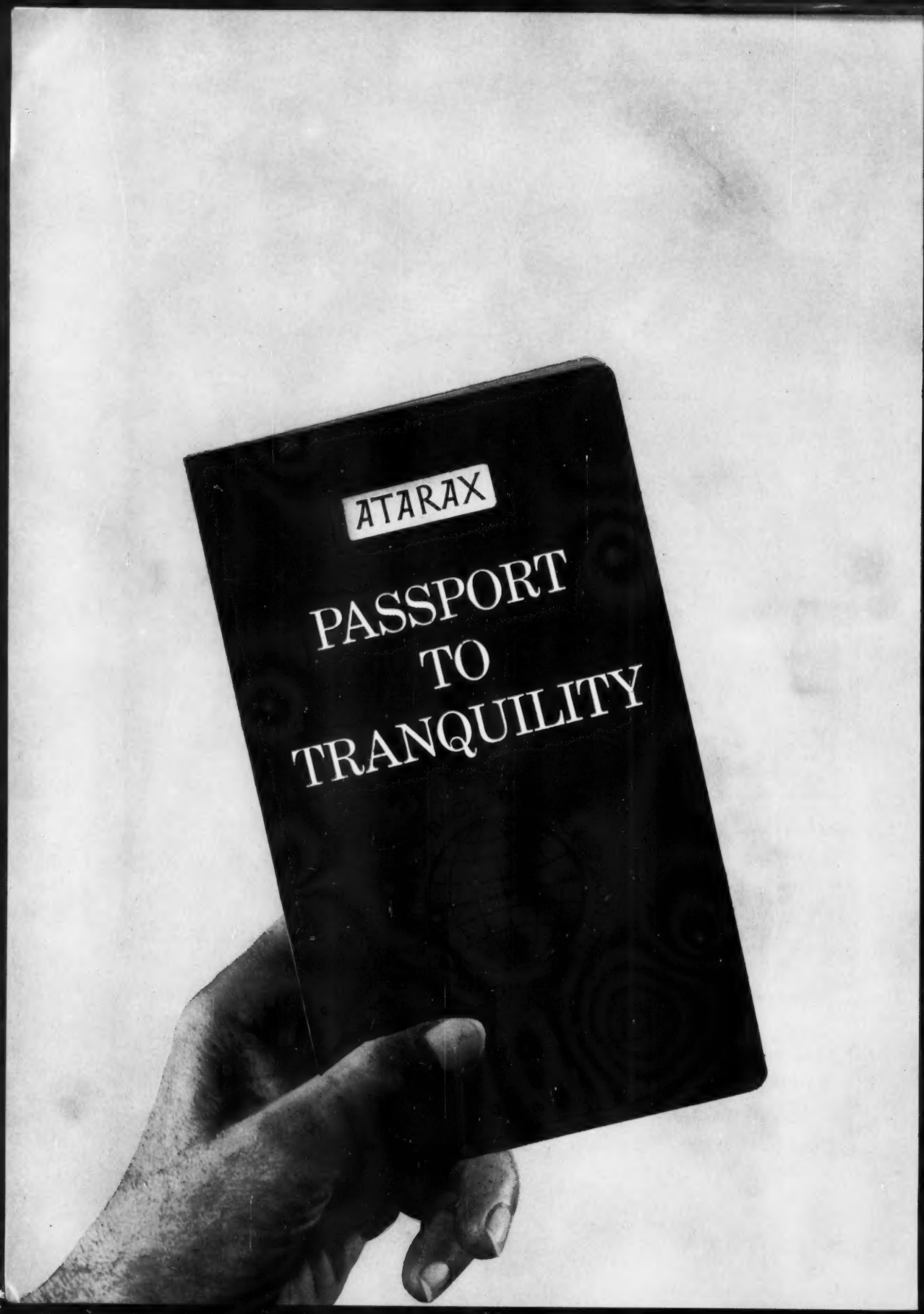
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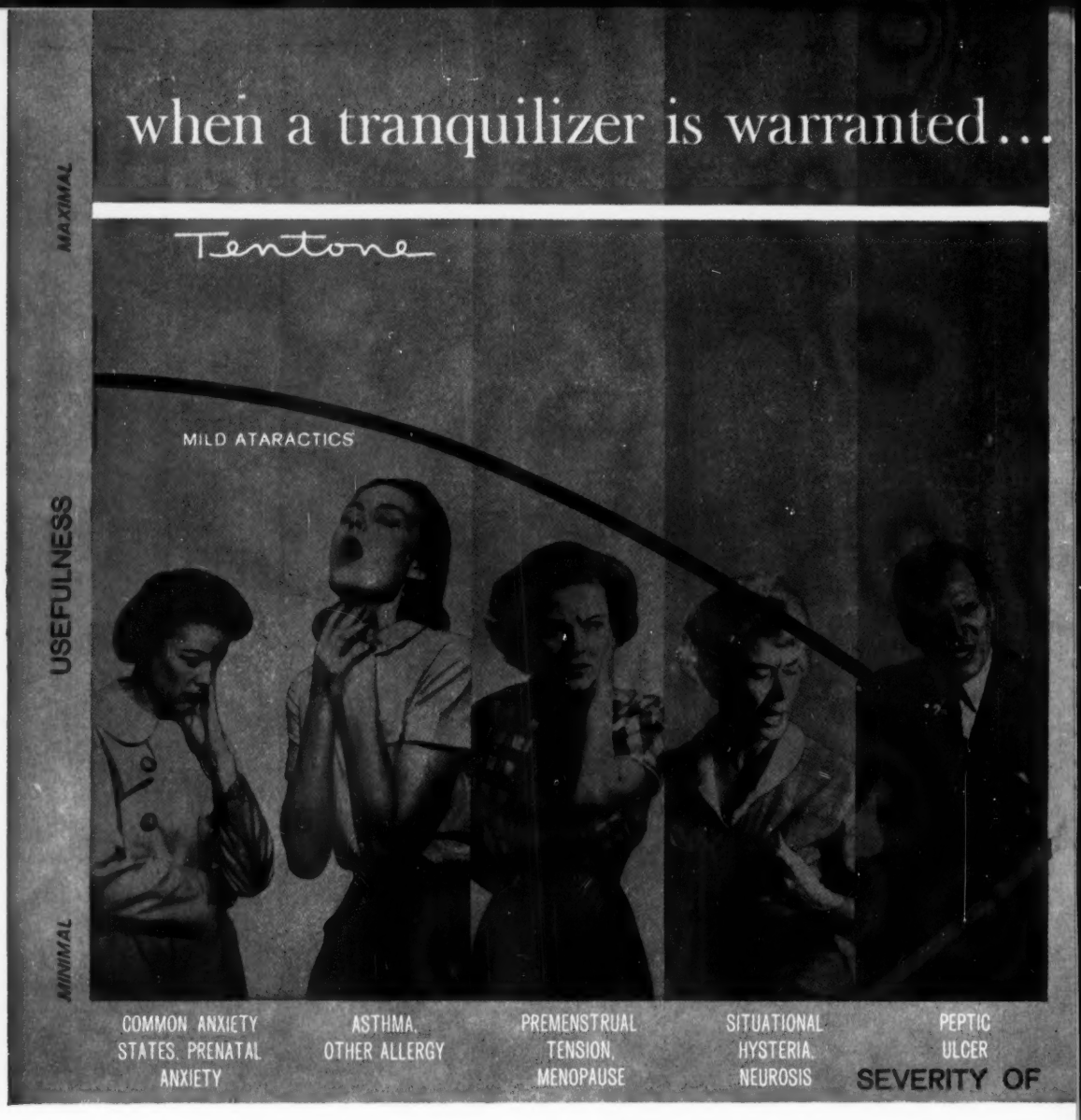

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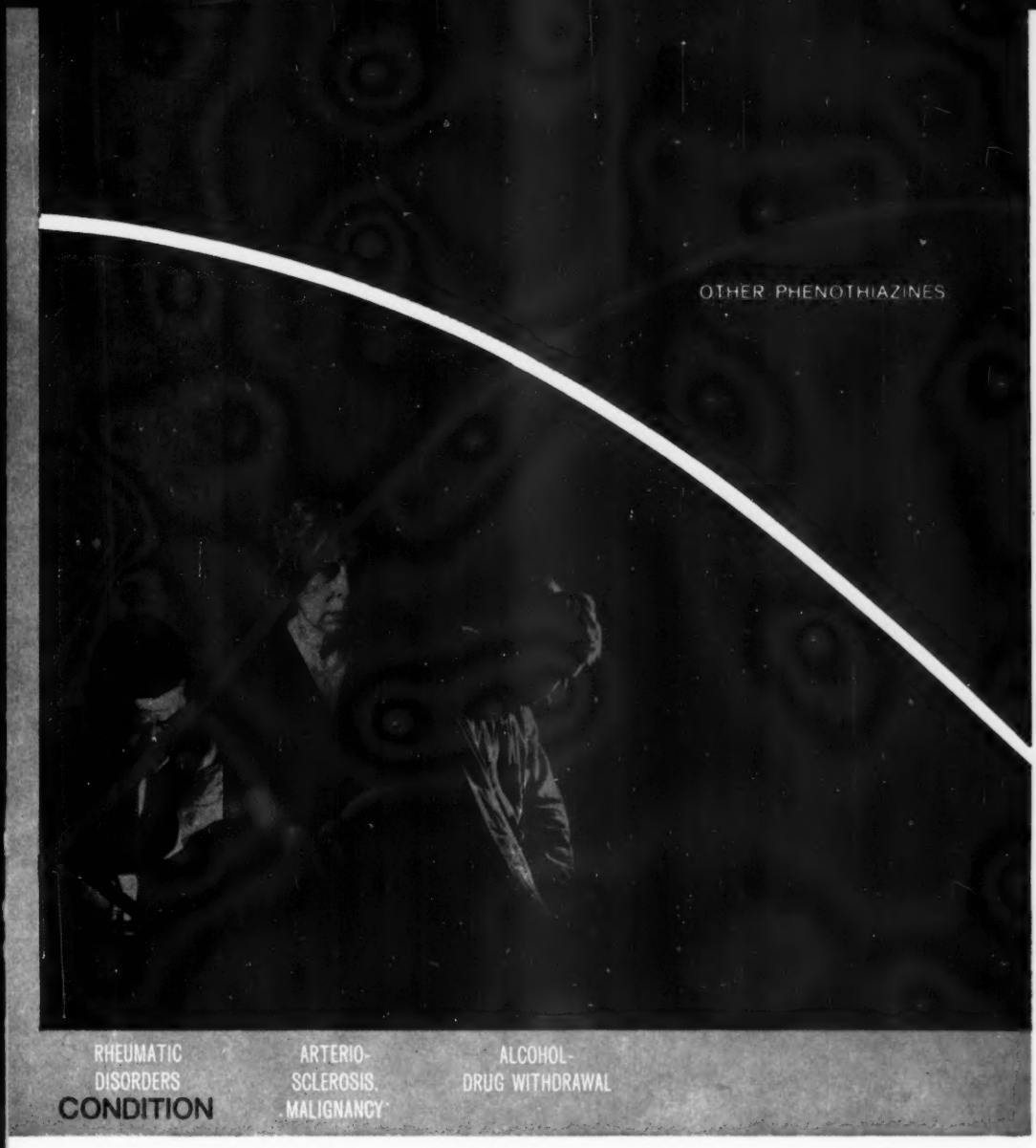
TENTONE® Methoxypromazine Maleate is a new, distinctive phenothiazine... highly active ...for general use in mild and moderate emotional and psychosomatic disorders.

TENTONE elicits a striking, positive calming response[1,2]...with marked reduction of psychic disorientation, and low risk of blood, liver or other organic toxicity and intolerance.[1-4]

TENTONE parallels the weaker ataractics in low incidence of side effects. Freedom from induced depression is apparently even greater.[5]

TENTONE provides a broadly adaptable dosage range (30 to 500 mg. daily) to permit maximum control in cases of varying severity.

TENTONE is also indicated to relieve emotional stress in surgical, obstetric and other hospitalized patients.



Dosage: Mild to moderate cases—average starting dose, one 10 mg. or one 25 mg. tablet three or four times daily. *Moderate to severe*—average starting dose, one 50 mg. tablet four times daily. *Supplied:* 10 mg., 25 mg., and 50 mg. tablets.

1. Bodi, T., and Levy, H.: Clinical report, cited with permission. 2. Wetzler, R. A., and Phillips, R. M.: Clinical report, cited with permission. 3. Prigot, A.: Clinical report, cited with permission. 4. Gosline, E., *et al.*: *Am. J. Psychiat.* 115:939 (April) 1959. 5. Turvey, S. E. C.: Clinical report, cited with permission.

Tentone

Methoxypromazine Maleate

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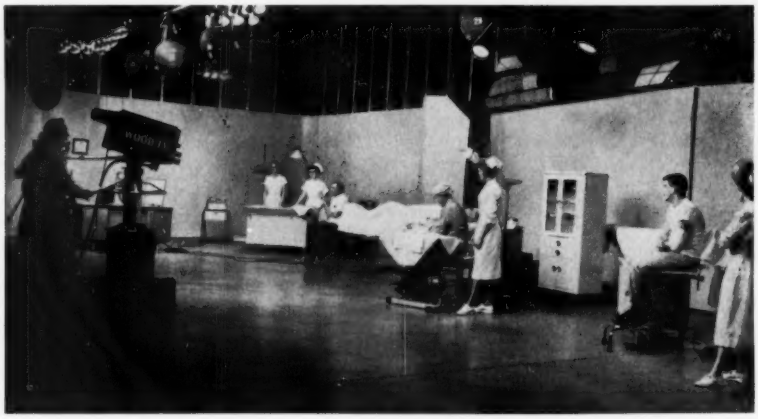
PR REPORT



"Ten seconds to air time." Everyone is ready for the signal from the director just before the show began in the WOOD-TV studios at Grand Rapids. More pictures on opposite page.

McNamara Hearings Explore Status of Michigan's Aging

Authorities, pseudo-authorities, and others interested in the current status and future of Michigan's over-65 population, testified before a touring Senate Committee chaired by Senator Pat McNamara (D-Mich.). Hearings were held in Grand Rapids on November 16-17 and in Detroit in mid-December. Other hearings were held in various parts of the nation.

Testimony was presented by spokesmen for medicine, labor, industry, hospitals, nurses, religion and the oldsters themselves.

The viewpoint of medicine was expressed by doctors of medicine who appeared on behalf of MSMS and the Kent and Wayne County Medical Societies.

No conclusions were reached by the Senate Committee. Chairman McNamara said the Committee was attempting to assess the problem with an eye to possible drafting of federal legislation in the 1960 session of Congress.

Third "Family Doctor" Show Produced in Grand Rapids

A special live MSMS television production, "The Family Doctor," was seen by western Michigan TV viewers on October 18 over WOOD-TV, Grand Rapids. By special arrangement the show was carried simultaneously over WPBN-TV, Traverse City.

This was the third of four planned productions of The Family Doctor. The first show was presented in Detroit during the 1958 Annual Session and the second in April, 1959, over WKZO-TV, Kalamazoo.

A fourth local production is planned within the next few months over another outstate TV station.

Outstate productions were recommended by the MSMS PR Committee in order to provide county medical societies within television reception areas with a locally oriented public relations vehicle.

The series is being produced by the Michigan State Medical Society, the Michigan Health Council, and the local county medical society.

Cooperating in the third project was the Kent County Medical Society and WOOD-TV which carried the one-hour program as a public service.

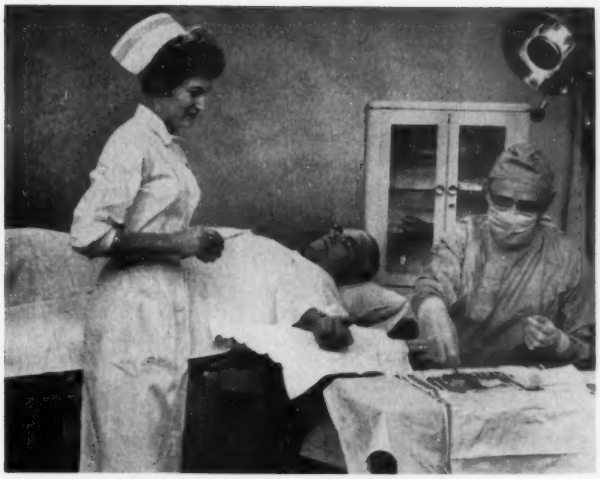
For this show, the TV studios were transformed into a doctor's office by use of equipment provided by the Medical Arts Supply Company of Grand Rapids.

The program dramatized the facilities and services that are obtainable in a modern doctor's office. Several examinations and surgical procedures were performed including a complete physical examination with history.

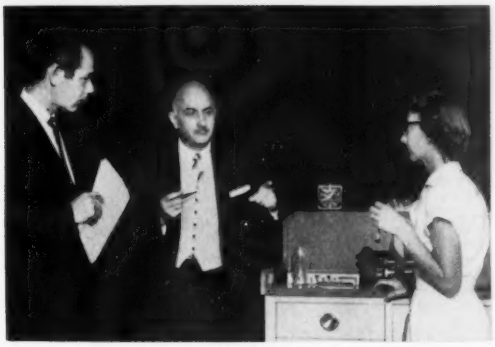
John R. Pedden, M.D., Grand Rapids, gave a running scientific commentary, and Alex Dillingham, of WOOD-TV, served as announcer-moderator.

Participants in "The Family Doctor" were:

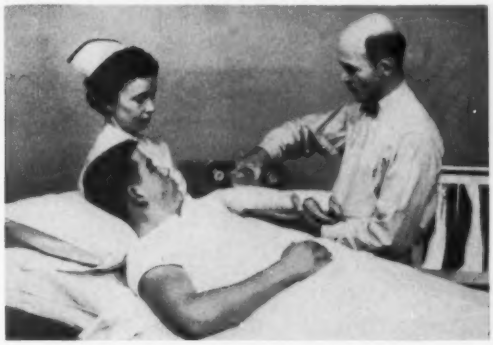
(Continued on Page 1952)



. . . Additional photos from the special live television MSMS production "The Family Doctor" presented over WOOD-TV at Grand Rapids. At left, Nurse Brunger assists James W. Logie, M.D., as he removes a lipoma from the arm of a patient.



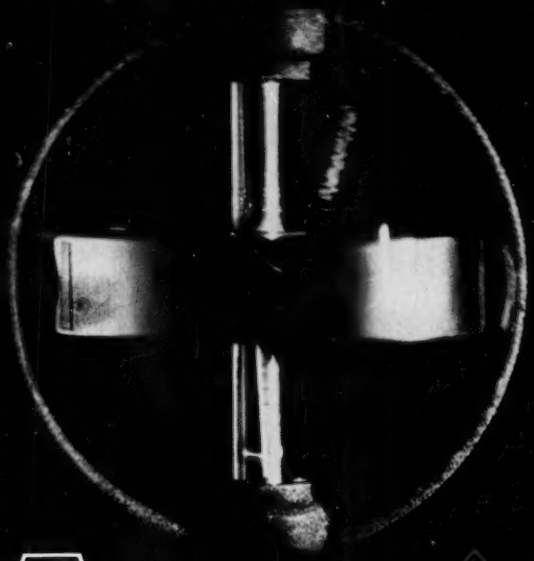
Scientific Commentator John R. Pedden, M.D., center, discusses a point with announcer-moderator Alex Dillingham of WOOD-TV.



An orthopedic demonstration included the use of an electric cast cutter. Haven E. Jones, M.D., right, is assisted by Nurse Lois Doering.

An actual physical examination is performed by G. Edward Braunschneider, M.D., following the history taking scene.

minimal disturbance
of the patient's chemical and psychic balance...



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Substantiated by published reports of leading clinicians:

- **effective control** of allergic and inflammatory symptoms[1-20]

- **minimal disturbance** of the patient's chemical and psychic balance[1, 4, 5, 8-19]

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At anti-inflammatory and antiallergic levels ARISTOCORT means:

- **freedom from salt and water retention**
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- **low incidence of peptic ulcer**
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Indications: rheumatoid arthritis; arthritis; respiratory allergies; allergic and inflammatory dermatoses; disseminated lupus erythematosus; nephrotic syndrome; lymphomas and leukemias.
Precautions: With ARISTOCORT all traditional precautions to corticosteroid therapy should be observed. Dosage should always be carefully adjusted to the smallest amount which will suppress symptoms. After patients have been on steroids for prolonged periods, discontinuance must be carried out gradually.
Supplied: Scored tablets of 1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white). Diacetate Parenteral (for intra-articular and intrasynovial injection). Vials of 5 cc. (25 mg./cc.).

References: **1.** Feinberg, S.M., Feinberg, A.R., and Fisherman, E.W.: *J.A.M.A.* 167:58 (May 3) 1958. 2. Epstein, J.I. and Sherwood, H.: *Connecticut Med.* 22:822 (Dec.) 1958. 3. Friedlaender, S. and Friedlaender, A.S.: *Antibiotic Med. & Clin. Ther.* 5:315 (May) 1958. 4. Segal, M.S. and Duvenci, J.: *Bull. Tufts North East M. Center* 4:71 (April-June) 1958. 5. Segal, M.S.: Report to the A.M.A. Council on Drugs, *J.A.M.A.* 169:1063 (March 7) 1958. 6. Sherwood, H. and Cooke, R.A.: *J. Allergy* 28:97 (Mar.) 1958. 7. Duke, C.J. and Oviedo, R.: *Antibiotic Med. & Clin. Ther.* 5:710 (Dec.) 1958. 8. McGavack, T.H.: *Clin. Med.* (June) 1958. 9. Freyberg, R.H.; Berntsen, C.A., and Hellman, L.: *Arthritis and Rheumatism* 1:215 (June) 1958. 10. Hartung, E.F.: *J.A.M.A.* 167:973 (June 21) 1958. 11. Hartung, E.F.: *J. Florida Acad. Gen. Pract.* 8:18, 1958. 12. Zuckner, J.; Ramsey, R.H.; Caciolo, C., and Gantner, G.E.: *Ann. Rheum. Dis.* 17:398 (Dec.) 1958. 13. Appel, B.; Tye, M.J., and Leibsohn, E.: *Antibiotic Med. & Clin. Ther.* 5:716 (Dec.) 1958. 14. Kalz, F.: *Canad. M.A.J.* 79:400 (Sept.) 1958. 15. Mullins, J.F., and Wilson, C.J.: *Texas State J. Med.* 54:648 (Sept.) 1958. 16. Shelley, W.B.; Harun, J.S., and Pillsbury, D.M.: *J.A.M.A.* 167:959 (June 21) 1958. 17. DuBois, E.F.: *J.A.M.A.* 167:1590 (July 26) 1958. 18. McGavack, T.H.; Kao, K.T.; Leake, D.A.; Bauer, H.G., and Berger, H.E.: *Am. J. Med. Sc.* 236:720 (Dec.) 1958. 19. Council on Drugs: *J.A.M.A.* 169:257 (Jan. 17) 1959. 20. Rein, C.R.; Fleischmajer, R., and Rosenthal, A.R.: *J.A.M.A.* 165:1821 (Dec. 7) 1957.

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THIRD "FAMILY DOCTOR" SHOW

(Continued from Page 1948)

C. W. Aldridge, M.D., H. D. Ireland, M.D.; Haven E. Jones, M.D.; Douglas Moore, M.D., and John R. Pedden, M.D., all of Grand Rapids.

Medical assistants from the Kent County Medical Assistants Society were:

Karen Brunger, Claire Burnett, Lois Doering, Beatrice Ohren, Mrs. Marcia Shooks, and Charlotte Webster.

Oakland Doctors Help at Area Football Contests

This fall, doctors of the Oakland County Medical Society offered their services during football games to local high schools so that better on-the-spot protection could be given injured players.

George N. Petroff, M.D., of Pontiac, chairman of the committee which arranged the program, said, "The instant response to the Medical Society offer indicated how much school boards desired this supplementary measure. Five schools responded immediately on the heels of the offer and others followed quickly.

Doctor Petroff said that the doctor assigned to cover the games had the final say as to whether the athlete continued to play in a game. A medical rule was that any boy rendered unconscious on the field was not returned to that game. In the case of a dislocation, the player was through for the season.

Plans for enlarging the program for the 1960 football season are already under discussion.

Communications

We are happy to publish this letter, particularly as it will give pleasure to Charles Sellers, M.D., of Detroit, who selected the writers, collected the papers and edited the essays for the symposium which appeared in the September issue, and did such a beautiful piece of work.—EDITOR.

Dear Doctor Haughey:

I have enjoyed your September 1959 issue of THE JOURNAL OF MICHIGAN STATE MEDICAL SOCIETY and must congratulate you on your excellent selection of articles concerning the care of the aged which appear in this issue. I think they are splendid.

With kind regards, I am

Sincerely yours,
H. E. CARNES, M.D.
Editor, Therapeutic Notes
Parke, Davis & Company

for the tense and nervous patient

relief comes fast and comfortably

–does not produce autonomic side reactions
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Usual Dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets or as MEPROTABS*—400 mg. *unmarked*, coated tablets.

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. . . a new way to relieve pain and stiffness in muscles and joints

indicated in:

MUSCLE STIFFNESS

LUMBOSACRAL STRAIN

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WHIPLASH INJURY

BURSITIS

SPRAINS

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FIBROSITIS

FIBROMYOSITIS

LOW BACK PAIN

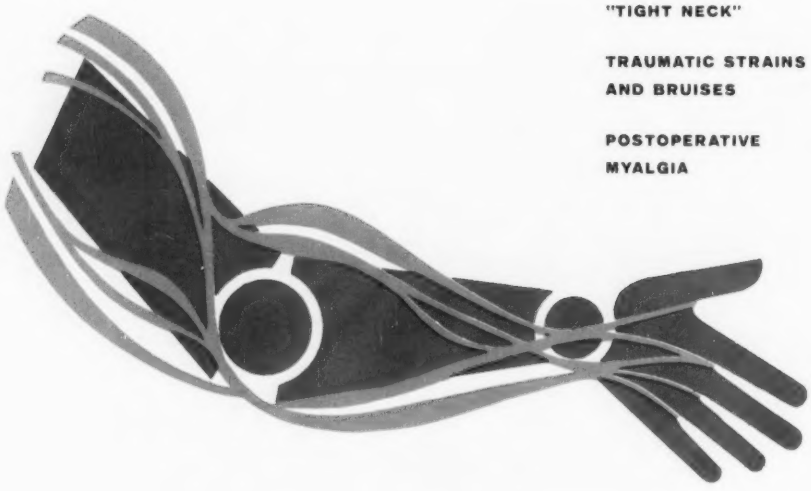
DISC SYNDROME

SPRAINED BACK

"TIGHT NECK"

TRAUMATIC STRAINS AND BRUISES

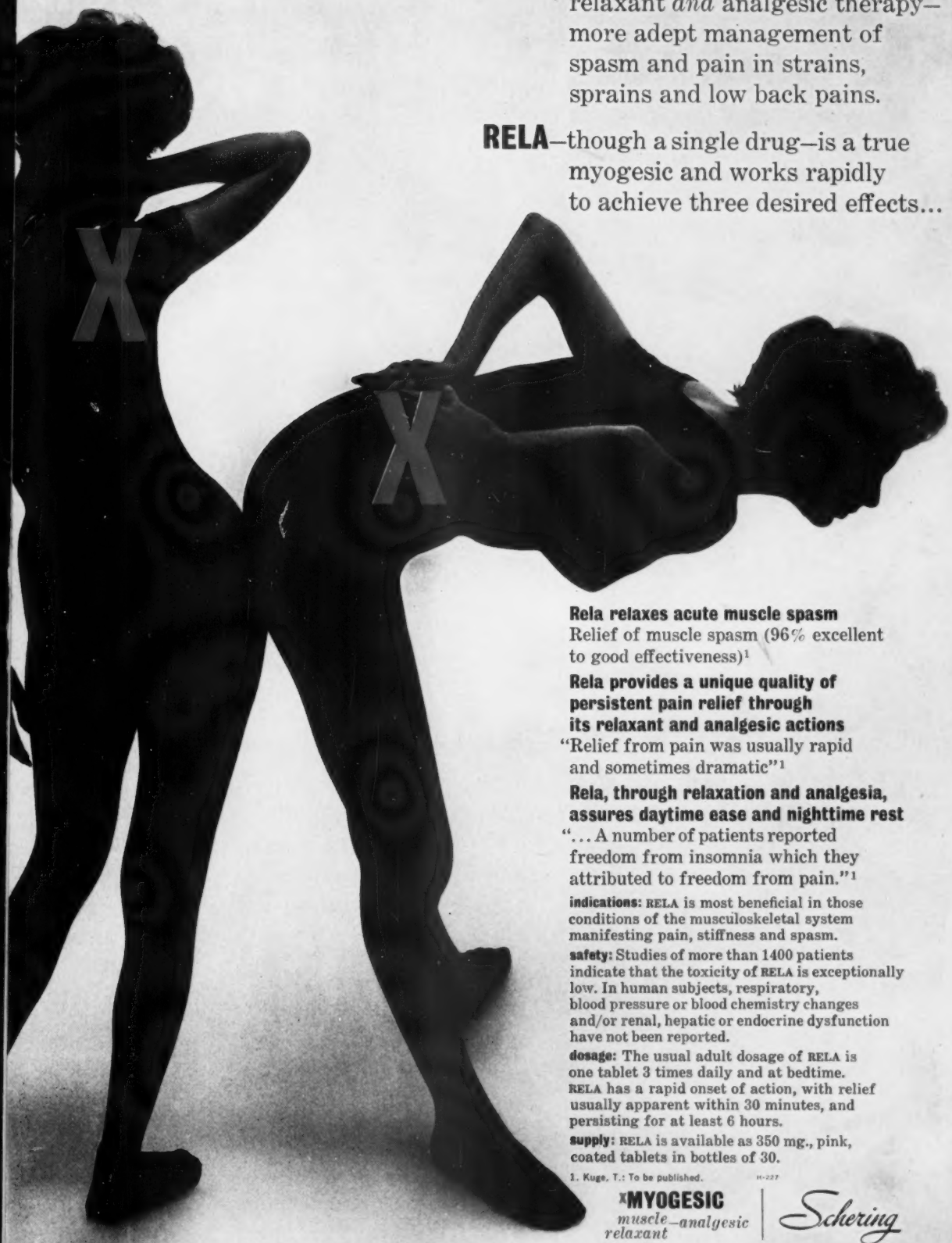
POSTOPERATIVE MYALGIA



ANNOUNCING SCHERING'S NEW MYOGESIC[X]

RELA™ EASES STRAINS SPRAINS & LOW BACK PAINS...!

CARISOPRODOL



RELA—a new myogesic for better relaxant *and* analgesic therapy—more adept management of spasm and pain in strains, sprains and low back pains.

RELA—though a single drug—is a true myogesic and works rapidly to achieve three desired effects...

Rela relaxes acute muscle spasm
Relief of muscle spasm (96% excellent to good effectiveness)[1]

Rela provides a unique quality of persistent pain relief through its relaxant and analgesic actions
"Relief from pain was usually rapid and sometimes dramatic"[1]

Rela, through relaxation and analgesia, assures daytime ease and nighttime rest
"... A number of patients reported freedom from insomnia which they attributed to freedom from pain."[1]

indications: RELA is most beneficial in those conditions of the musculoskeletal system manifesting pain, stiffness and spasm.

safety: Studies of more than 1400 patients indicate that the toxicity of RELA is exceptionally low. In human subjects, respiratory, blood pressure or blood chemistry changes and/or renal, hepatic or endocrine dysfunction have not been reported.

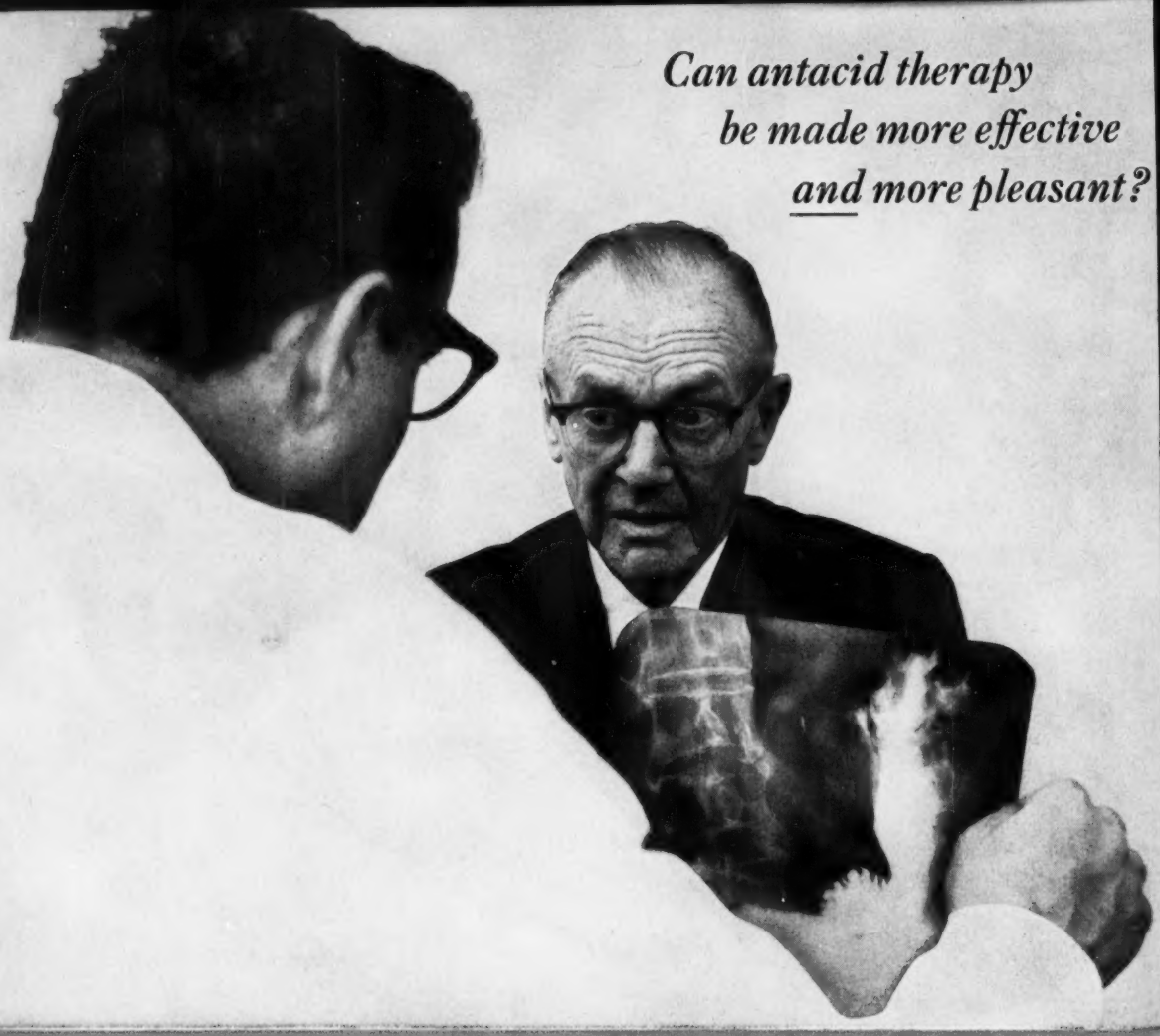
dosage: The usual adult dosage of RELA is one tablet 3 times daily and at bedtime. RELA has a rapid onset of action, with relief usually apparent within 30 minutes, and persisting for at least 6 hours.

supply: RELA is available as 350 mg., pink, coated tablets in bottles of 30.

1. Kuge, T.: To be published. H-227

MYOGESIC
muscle relaxant—analgesic

Schering



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1. ***Neutralizes acid faster (quicker relief)***
2. ***Neutralizes more acid (greater relief)***
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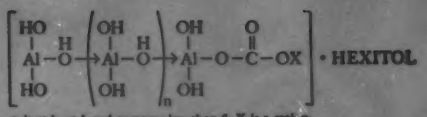
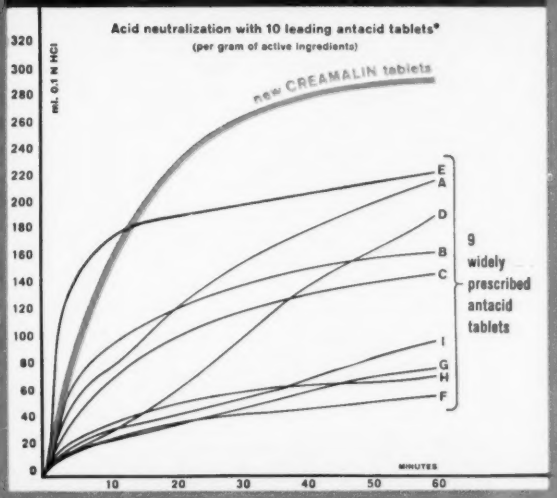
a new high in effectiveness and palatability



n is at least 1 and averages less than 6. X is a cation.

CREAMALIN NEUTRALIZES *MORE* ACID *FASTER*

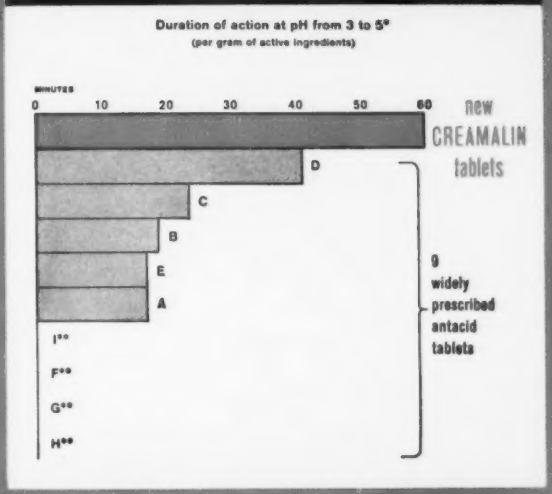
Quicker Relief • Greater Relief



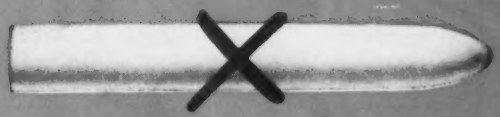
Tablets were powdered and suspended in distilled water in a constant temperature container (37°C) equipped with mechanical stirrer and pH electrodes. Hydrochloric acid was added as needed to maintain pH at 3.5. Volume of acid required was recorded at frequent intervals for one hour.

CREAMALIN NEUTRALIZES *MORE* ACID *LONGER*

More Lasting Relief



*Hiniker, E. T., Jr., Fisher, M. P. and Tainter, M. L.: A new highly reactive aluminum hydroxide complex for gastric hyperacidity. To be published.
**pH stayed below 3.



No chalky taste. New CREAMALIN tablets are not chalky, gritty, rough or dry. They are highly palatable, soft, smooth, easy to chew, mint flavored.

• NO ACID REBOUND • NO CONSTIPATION
• NO SYSTEMIC EFFECT

Adult Dosage: Gastric hyperacidity: 2 to 4 tablets as necessary. Peptic ulcer or gastritis: 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed with water or milk, or allowed to dissolve in the mouth.

Supplied: Bottles of 50, 100, 200 and 1000.

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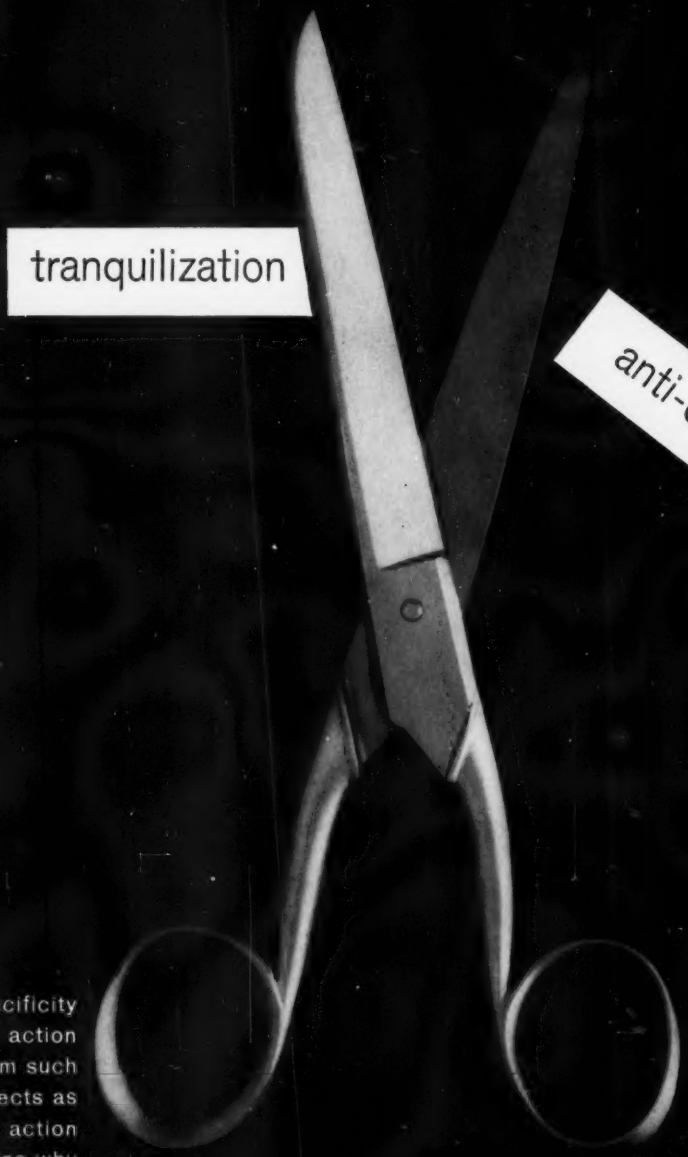


greater specificity
of tranquilizing action
—divorced from such
"diffuse" effects as
anti-emetic action
—explains why

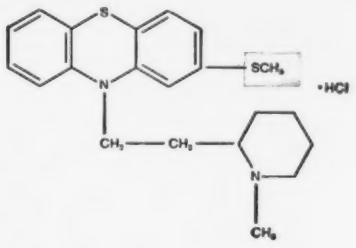
Mellaril®

THIORIDAZINE HCl

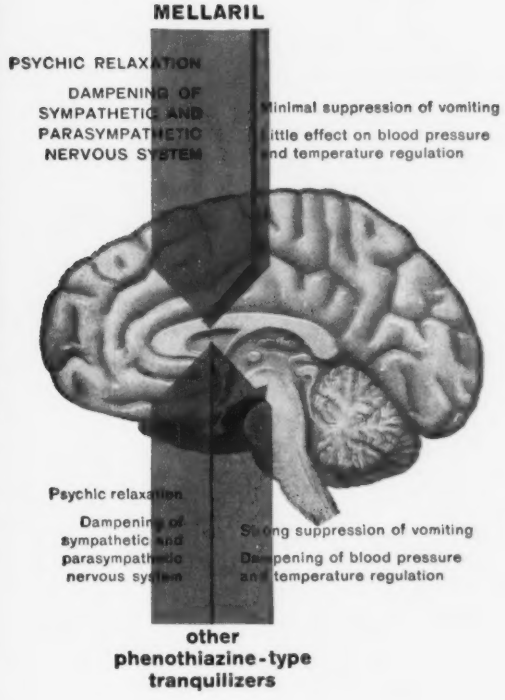
is virtually free of such toxic effects as · jaundice · Parkinsonism · blood dyscrasia

"Thioridazine [MELLARIL] is as effective as the best available phenothiazine, but with appreciably less toxic effects than those demonstrated with other phenothiazines. ... This drug appears to represent a major addition to the safe and effective treatment of a wide range of psychological disturbances seen daily in the clinics or by the general practitioner."*

a new advance in tranquilization:
greater specificity of tranquilizing action results in fewer side effects



The presence of a thiomethyl radical ($S\text{-}CH_3$) is unique in Mellaril and could be responsible for the relative absence of side effects and greater specificity of psychotherapeutic action. This is shown clinically by:



1 A specificity of action on certain brain sites in contrast to the more generalized or "diffuse" action of other phenothiazines. This is evidenced by a lack of appreciable anti-emetic effect.

2 Less "spill-over" action to other brain areas — hence, absence of undue sedation, drowsiness or autonomic nervous system disturbances.

3 A notable absence of extrapyramidal stimulation.

4 Lack of impairment of patient's normal drive and energy.

5 Virtual freedom from such toxic effects as jaundice, photosensitivity, skin eruptions, blood forming disorders.

INDICATION	USUAL STARTING DOSE	TOTAL DAILY DOSAGE RANGE
ADULTS: Mental and Emotional Disturbances:		
MILD—where anxiety, apprehension and tension are present	10 mg. t.i.d.	20-60 mg.
MODERATE—where agitation exists in psychoneuroses, alcoholism, intractable pain, senility, etc.	25 mg. t.i.d.	50-200 mg.
SEVERE—in agitated psychotic states as schizophrenia, manic depressive, toxic psychoses, etc.:		
Ambulatory	100 mg. t.i.d.	200-400 mg.
Hospitalized	100 mg. t.i.d.	200-800 mg.
CHILDREN: BEHAVIOR PROBLEMS IN CHILDREN	10 mg. t.i.d.	20-40 mg.

MELLARIL Tablets, 10 mg., 25 mg., 100 mg.

*Ostfeld, A. M.: Scientific Exhibit, American Academy of General Practice, San Francisco, April 6-9, 1959

SANDOZ

You and Your Business

Compulsory Retirement Hit by AMA President Orr

"Retirement is fine, for those who want it, but many old people are finding old age a time of privation and misery, because an unthinking, albeit well-meaning society has ousted them from the mainstream of active living, into the morass of loneliness and hardship. To put a man out to pasture on a pension—solely because he has reached a chronological age—is ruthless!"

Addressing the Grand Rapids Lions Club on November 3, AMA President Louis M. Orr thus pointed to compulsory retirement at the age of sixty-five as the real problem of today's senior citizen. Dr. Orr noted, "We still have yet to find a wonder drug to cure loneliness or rejection."

In discussing the Forand Bill in Congress, which would provide hospital, surgical and nursing home care to social security beneficiaries, Dr. Orr described how the 15 million Americans over the age of 65 currently are being provided adequate and individualized health care in the community.

He noted that much of the health services now voluntarily provided to the medically indigent might quickly vanish if the federal government were permitted to provide for (and dictate the quality of) health care to this segment of the population.

Dr. Orr emphasized that the patent danger in the Forand Bill was the inevitability of the older age group being legislated into a dependence on the federal government for all its health needs, subject to Congressional whim and political pressure.

"The voluntary, community-level program is the only answer," Dr. Orr concluded. "We must defend the right to develop those voluntary solutions to our problems rather than have government dictation thrust upon us. We have added years to life; now we want to add life to those years."

Dr. Orr came to Grand Rapids directly from England where he participated in Prince Philip's inauguration as President of the British Medical Association.

Better Medicolegal Relations Urged

The public, in general, and physicians, specifically, should act to keep our laws up to date with scientific and medical progress, challenges LeMoyne Snyder, M.D., LL.D., formerly of East Lansing and now of Paradise, California.

"In large measure, our laws continue to be hostile to medical jurisprudence," contends Doctor Snyder in a recent *AMA Journal* article.

"Only a few states have made any demand for competent medical experts to come to the aid of the law," reports Doctor Snyder. He points out that Britain has made greater advances in this field than U.S.A., and that chairs of legal medicine have been established in leading British medical schools. He observes:

"Advances in science have provided new tools. It is up to society now to see that the law uses them.

"Laws must be molded to make use of this vast expanse of scientific knowledge in the administration of justice. As people generally become aware of these advances the laws ultimately have to conform to encompass and use new and more reliable information.

"Laws never create public opinion, but laws sooner or later always have to conform to public opinion."

Doctor Snyder noted that some advances are being made, especially by the states that have instigated the medical examiner system in place of the coroner system.

"Michigan Heart Day" Set for Detroit in February

The first annual "Michigan Heart Day" has been scheduled for Saturday, February 13, 1960, at the Statler Hilton Hotel in Detroit. Separate sessions have been arranged for physicians and lay members.

The morning scientific session will begin at 9:00 with a presentation by Samuel A. Levine, M.D., Boston, on "Coronary Artery Disease," followed by Thomas M. Durant, M.D., Philadelphia, on "Congestive Heart Failure." The concluding morning presentation will be given by John S. Meyer, M.D., Wayne State University College of Medicine, on "Diagnosis and Treatment of Cerebral Accidents."

The afternoon Scientific Session from 1:30 to 5:00 will be devoted to panel discussions of the topics covered in the morning.

At the session for lay members, beginning at 2:00, Louis N. Katz, M.D., Chicago, will advise on the "Care and Feeding of Husbands." Ancel Keys, Ph.D., and Mrs. Keys, Minneapolis, will follow. Dr. Keys will talk on "Diet and the Prevention of Coronary Heart Disease," and Mrs. Keys will discuss "The Practical Choice and Preparation of Food."

The Business Meeting of the MHA will follow a luncheon.

(Continued on Page 1964)

to prevent the sequelae of u.r.i. ... and relieve the symptom complex

ACHROCIDIN®

Tetracycline-Antihistamine-Analgesic Compound Lederle

Otitis, tonsillitis, adenitis, sinusitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.[1] To protect and relieve the "cold" patient... ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP (lemon-lime flavored), caffeine-free.

1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

"Michigan Heart Day" Set for Detroit in February

(Continued from Page 1962)

"Michigan Heart Day" will be the high point of activity of Heart Month in the state. By changing the time of the annual meeting of the Association from March to February, an added impetus can be given to the intensified education drive conducted in Michigan each February.

Michigan Representatives Honored at AAMA

Twenty-five Michigan medical assistants attended the Third Annual Convention of the American Association of Medical Assistants at the Benjamin Franklin Hotel in Philadelphia, October 16, 17 and 18, 1959.

John W. Rice, M.D., MSMS Advisory Board Chairman to MSMAS, was elected chairman of the National Advisory Board for the ensuing year.

Hallie Cummins, a past president of the Michigan State Medical Assistants Society, and a former member of the AAMA Board of Directors, was elected as the national treasurer. Michigan was further honored by being presented an "Emmy" for first prize in the National Bulletin Contest.

H. W. Brenneman, Public Relations Counsel for MSMS, made an excellent presentation on the Educational Seminar on Saturday afternoon; his talk was titled "Leadership in Public Relations."

The MSMAS three-year in-service training program developed by the University of Michigan, with the help of MSMS and a grant by the Kellogg Foundation, was presented to the National Association. Dr. Ralph Steffek of the University of Michigan Extension Service, formally presented the training program syllabi to the incoming president of AAMA.

The House of Delegates of AAMA has appointed a Three-Year Study Committee to evaluate and make recommendations on future recognition through certification. Louis M. Orr, M.D., offered the assistance and guidance on the AMA on this study committee.

Michigan Delegates included: Mrs. Reta Stahl, Albion, president of MSMAS; Miss Donna Hislop, Muskegon, immediate past president; Mrs. Julia Pietila, Houghton; Miss Hallie Cummins, Caro. Alternate Delegates included: Miss Catherine LaPres, Muskegon; Mrs. Betty Lou Willey, Port Huron, president-elect of MSMAS, Miss Doris Jarrad, Detroit, and Mrs. Vivian Branyan, Grand Haven.

Miss Marlouise Redman, Detroit, was program chairman for the convention. Miss Elsie Kotsch, Detroit, and Miss J. Helen Rehm, Ferndale, assisted in the Officers' Workshop.

Social Security Conference

Unemployment and health insurance were discussed at a Social Security Conference held November 18-19 at Ann Arbor. Co-sponsored by the state's three major universities, the conference was held at the Michigan Union. Co-operating in the program were the University of Michigan, Wayne State University Institute of Labor and Industrial Relations and the Michigan State University Labor and Industrial Relations Center.

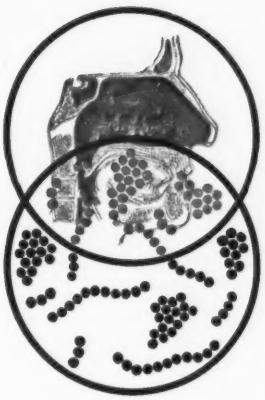
Speakers were Mrs. Anne R. Somers, research associate at Haverford (Pa.) College, discussing "Key Issues in Health Insurance." Commenting on her views: Mrs. Ida Merriam, director, Division of Program Research, Social Security Administration, U. S. Department of Health, Education, and Welfare; Morris Brand, M.D., medical director, Sidney Hillman Health Center, New York, N. Y.; and Alanson Willcox, general counsel, American Hospital Association.

George F. Davidson, Canadian deputy minister of health and welfare, spoke on "Trends and Issues in Canadian Social Security" following a 6:30 p.m. conference banquet.

The morning program on November 19 included William Haber, University of Michigan professor of economics, "The Persistent Problem of Unemployment"; Fedele Fauri, dean, University of Michigan School of Social Work, "The Role of Public Assistance"; William Papier, director of research and statistics, Bureau of Unemployment and Compensation, the State of Ohio, Columbus, "The Role of Unemployment Compensation."

MEDICAL MEETINGS AND CLINIC DAYS

1959-60	Events	Location
January 30-31	County Secretaries-Public Relations Seminar	Detroit
January 30	Bulletin Editors' Workshop	Detroit
February 13	Maternal Health Day	Detroit
February 25-27	National Conference on Rural Health	Grand Rapids
March 11-12-13	Michigan Clinical Institute	Detroit
April 13	Genesee County Cancer Day	Flint
May 7	Ingham County Clinic Day	Lansing



when upper respiratory congestion is complicated by bacterial invaders

TRISULFAMINIC provides logical therapy

- for the patient ill with congestion and infection of the upper respiratory tract, as in purulent rhinitis, sinusitis, tonsillitis and otitis media, when caused by sulfa-susceptible bacteria;
- because secondary invasion by such bacteria so frequently follows the common cold.[1]

the reasons for combining Triaminic with triple sulfas

Triaminic and triple sulfas are not only pharmacologically *compatible*, they are a therapeutically *logical* combination for upper respiratory infections: Triaminic for effective decongestant relief from rhinitis, rhinorrhea and sinusitis;[2] triple sulfas for well-established antibacterial action.

The advantages of Trisulfaminic in upper respiratory infections include: proved effectiveness; safety; economy; ease of administration; less likelihood of sensitivity reactions;[3] compatibility with antibiotics and other antibacterial therapy. Provided also as Suspension for additional convenience.

Trisulfaminic®

TRIAMINIC WITH TRIPLE SULFAS

Available as TABLETS and SUSPENSION

Each easy-to-swallow Trisulfaminic Tablet or 5 ml. teaspoonful of Suspension provides:

Triaminic® .....25 mg.
(phenylpropanolamine HCl 12.5 mg.
pheniramine maleate ..... 6.25 mg.
pyrilamine maleate ..... 6.25 mg.)
Trisulfapyrimidines, U.S.P. .....0.5 Gm.

Dosage:

Adults—2 to 4 tablets or tsp. initially, followed by 2 tablets or tsp. every 4 to 6 hours until the patient has been afebrile 3 days. *Children 8 to 12* – 2 tablets or tsp. initially, followed by 1 tablet or tsp. every 6 hours. *Children under 8*—dosage according to weight.

The palatability, convenience and effectiveness of the Suspension make it especially suitable for children and for those older patients who prefer liquid medication.

References: 1. Cecil, R. L., et al.: J.A.M.A. 124:8 (Jan. 1) 1944. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Beckman, H.: Drugs, Their Nature, Action & Use, Saunders, Philadelphia, 1958, p. 527.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

State Medical Journal Editors' Conference

The 1959 Conference of State Medical Society Medical Journal Editors was held in Chicago, October 26-27. It consisted of two days of well-selected programs including greetings from F. J. L. Blasingame, M.D., Executive Vice President of the American Medical Association.

Many subjects were covered including Research and Health, Legal Problems involved in publishing medical journals, Printing Costs and how they can be controlled, Medicine and Marketing from a pharmaceutical standpoint, Indexing Techniques, Abstracts of articles submitted and accepted for AMA specialty journals, Co-operation between the Medical Departments of the Pharmaceutical Industry and Editors of All Medical Journals.

At the banquet held the first evening Jack Herbert talked on "Pills I Have Known." A paper, "In defense of the Printed Word as a means of Medical Communication as Against Other Forms of Spreading What May or May Not Be Called the Gospel," was presented the next day, following which Mr. O. M. Forkert of O. M. Forkert Associates presented a talk on "New Trends in Magazine Format: Visual Showing and Comments on Progress of Our Journals." This is the third time he has appeared before this group. The new format which some of the national publications, such as the *Saturday Evening Post*, took a few years ago was the result of his work. He complimented the editors and personnel upon the extreme progress made by the medical journals since he first saw them in 1955. He had been furnished the April issue of each of the publications and made an elaborate study from seven or eight different categories with ten or twelve questions under each. He graded each journal under each category and announced that the only time he ever gave 100 per cent was when it was worth it. When it was outstanding, he considered 90 per cent as very good. Seven of the journals rated 90 per cent or above; twenty-one rated from 87.5 to 90 per cent.

He pointed out many things which can be done to make the journals more readable, more newsworthy, more attractive. He said one of the greatest advances in printing and communications was the development of movable type, and he told about a replica of the original first page so printed. He picked up the *Rocky Mountain Medical Journal* and said it was the one which had made the most improvement in the years from 1955 to 1959. He called upon the editor and presented him with a framed duplicate of the original printing job. Next, he picked up the THE JOURNAL of the Michigan State Medical Society and commented upon the cover, how attractive and significant it was, its bearing upon the contents of THE JOURNAL, and awarded Michigan one of the replicas with a score of 100 per cent. Next he awarded *Minnesota Medicine* a replica for its use of materials and format, and fourth he awarded Georgia a plaque for the outstanding job done in presenting a paper in that number of the journal with illustrations and details which "talked to you." He said the rest of the journals had many of them lost out only by half a point. They ran so close together, the total average was 88.14 per cent.

COLON CARCINOMA

(Continued from Page 1938)

To adequately study the colon roentgenographically, there must be proper careful preparation of the patient beginning at least twenty-four hours before the study is made. There are some few instances when this routine has to be modified because of the patient's condition. In acute obstructions barium may be given rectally without preparation. It makes no particular difference how the colon is cleared—the important point is that the colon must be free of confusing non-opaque fecal shadows.

The details of the examination vary. Many believe that the colon should be studied with a thin barium mixture and a high voltage technique which will reveal small intrinsic lesions. Frequently further examination by the more familiar double contrast method is indicated.

Polyps are much more common than we are led to believe and are impossible to demonstrate without adequate preparation and careful study. Thirty per cent of all patients with cancer of the colon will show polyps near the site of the cancer.

Colon cancer is curable in approximately fifty per cent of the cases. Early diagnosis will greatly improve this survival rate. As physicians, the responsibility rests with us.

LELAND E. HOLLY, M.D.
Radiologist

NIAMID*
brightens life for the aged

NIAMID gives the depressed elderly person a new sense of well-being. The family will notice a sunnier outlook, an alert interest in group activities, a renewed awareness of personal appearance, and a return of appetite. Your patient will be more cooperative and less demanding.

You can expect to see the same excellent response to NIAMID in a wide variety of depressive syndromes—acute or chronic, mild or severe, whether associated with long-standing or incurable illness, or masquerading as organic disease.

NIAMID side effects are infrequent and mild, and often lessened or eliminated by a reduction in dosage. NIAMID has not been reported to cause jaundice, and significant hypotensive effects have rarely been noted.

DOSAGE: Start with 75 mg. daily in single or divided doses, and adjust according to patient response. NIAMID acts slowly, without rapid jarring of physical or mental processes. Some patients respond to NIAMID within a few days, but for full therapeutic benefit, most require at least two weeks. NIAMID is available as 25 mg. (pink) and 100 mg. (orange) scored tablets.

Already clinically proved in several thousand patients—

Complete references and a Professional Information Booklet giving detailed information on NIAMID *are available on request from the Medical Department, Pfizer Laboratories, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.*

NIAMID
the mood brightener in geriatrics

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AMA Washington Letter

THE MONTH IN WASHINGTON

A special committee of consultants to the Federal government has recommended what was termed an urgent, essential program designed to maintain the present ratio of physicians in a sharply expanding population.

Dr. Leroy E. Burney, Surgeon General of the Public Health Service, gave his personal approval to the recommendations made by his Consultant Group on Medical Education (twenty-two members) after about a year's study. But he said he couldn't indicate yet "the extent to which they can be incorporated" in next year's proposals of the Department of Health, Education and Welfare.

The Consultant Group recommended expansion of existing medical schools and construction of twenty to twenty-four new ones with Federal help, federal scholarships for medical students, and greater efforts in the field by states, local communities, foundations, individuals, industry and voluntary agencies.

The Group said the present ratio of 133 doctors of medicine and 8 doctors of osteopathy per 100,000 population is "a minimum essential to protection of the health of the people of the United States."

To maintain this ratio the Group said, "the number of physicians graduated annually by schools of medicine and osteopathy must be increased from the present 7,400 a year to some 11,000 by 1975—an increase of 3,600 graduated.

"To meet the country's need for physicians for medical care, teaching, research and other essential purposes will require an immediate and strenuous program of action by the nation as a whole," the Group's 95-page report stated.

"This program must safeguard and improve the quality of medical education as well as bring about the needed substantial increase in the number of physicians."

The No. 1 recommendation of the Group was for the Federal government to appropriate over the next ten years' funds—estimated at about $500 million "on a matching basis to meet construction needs for medical education," including necessary teaching hospitals.

"The Consultant Group is convinced that the nation's physician supply will continue to lag behind the needs created by increasing population unless the Federal government makes an emergency financing contribution on a matching basis toward the construction of medical school facilities," the report said.

The Group also said research grants to medical schools "should cover full indirect costs so that medical schools are properly reimbursed for the contribution of medical education to medical research."

These two recommendations were in line with American Medical Association positions on the matters.

The Group also urged "more generous public and private support for the basic operations of medical schools." Such support, the report added, "must come from many sources, including state and local appropriations, endowments, gifts and grants, universities, and reimbursement for patient care."

Most of the consultants were physicians or educators. They included Dr. Julian Price of Florence, S. C., a member of the AMA Board of Trustees, and Dr. Edward L. Turner, Director of the AMA Division of Scientific Activities.

Highlights of the Group's report included:

. . . To maintain the present physician-population ratio, the expected 1975 population of 235 million will require a total of 330,000 doctors of medicine and osteopathy.

. . . There also must be 12,000 entering students in 1971, as against about 7,600 a year now.

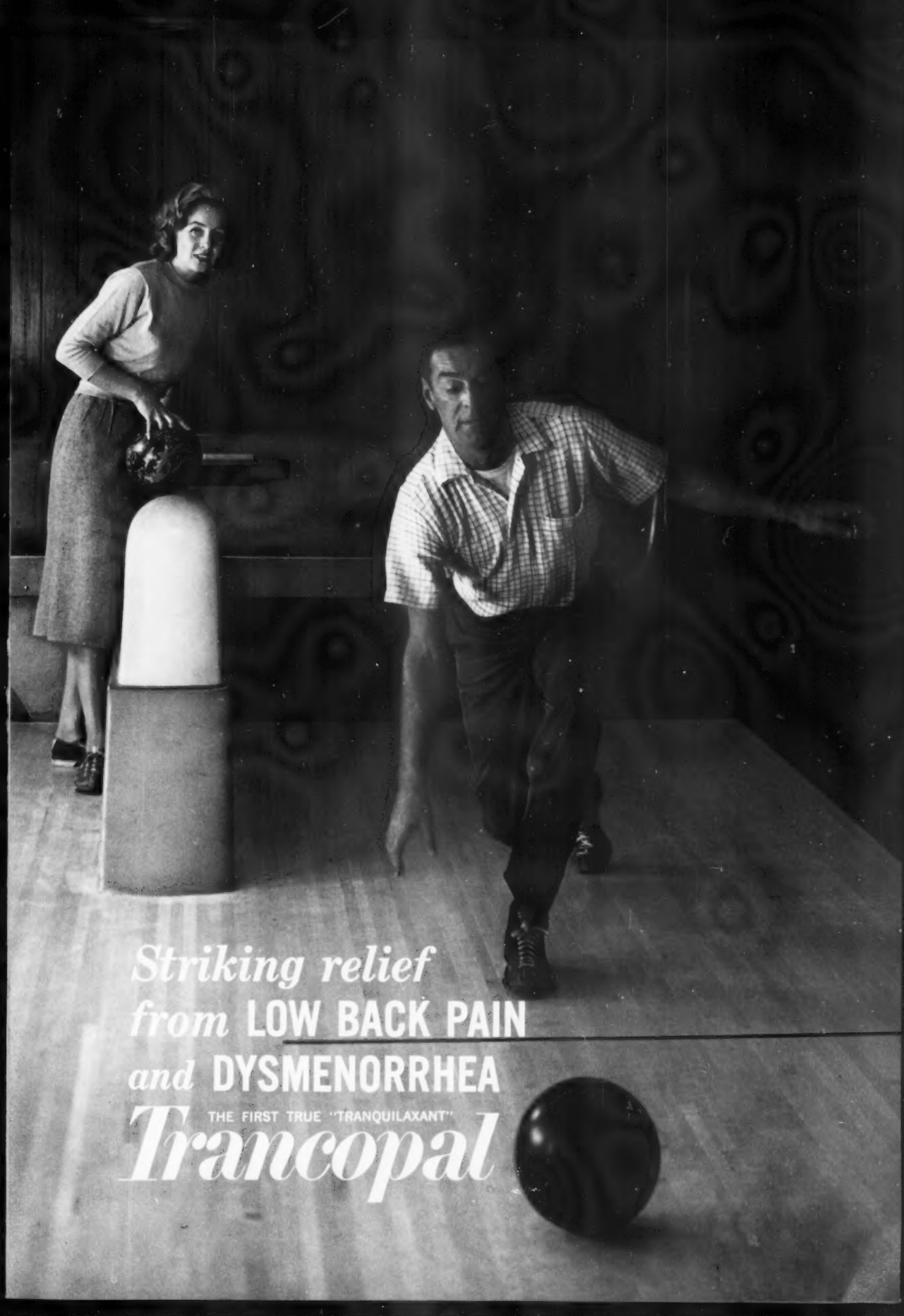
. . . "In a very real sense, the needs for physicians cannot be met by numbers alone. They will be met only as an expanded program maintains and enhances the quality of medical education."

. . . The entry of more physicians into research, industrial medicine and similar activities "has made possible much of the progress of modern medicine." But it also has resulted in "relatively fewer physicians devoting full time to patient care."

TELEVISION AND CHILDREN'S EYES

Television does not harm a child's vision, says an opthalmologist at The University of Michigan Medical Center.

Reported John W. Henderson, M.D., "There is no evidence to show that excessive television viewing does more than injure the mind."


Striking relief
from LOW BACK PAIN
and DYSMENORRHEA
THE FIRST TRUE "TRANQUILAXANT"
Trancopal

Here is what you can expect when you prescribe

for dysmenorrhea

and premenstrual tension

Case Profile*

A 28-year-old married woman, a secretary in a booking agency, complained of severe and consistent pain and cramps in the abdomen during her menstrual periods. Psychologically, she described the first two days as "climbing the walls." Menarche occurred at age 13. She has a regular twenty-eight day menstrual cycle and a four day menstrual period.

Trancopal was given in a dose of 100 mg. four times a day for the first two days of the four day period. In addition to the relief of the dysmenorrhea she also noticed disappearance of a "bloated feeling" that had previously annoyed her. She has now been treated with Trancopal for one and one-half years with excellent results. Other medication, such as codeine or aspirin with codeine, had relieved the pain, but the patient had had to stay home. Because her father is a physician, many commercial preparations had been tried prior to Trancopal, but no success had been achieved.

Before taking Trancopal this patient missed one day of work every month. For the past year and a half she has not missed a day because of dysmenorrhea.

THE FIRST TRUE "TRANQUILAXANT"

Trancopal®

for low back pain

Case Profile*

A 42-year-old truck driver and mover injured his back while moving a piano. The pain radiated from the sacral region down to the region of the Achilles tendon on the right side. X-rays for ruptured disc revealed nothing pertinent. The day of the injury he was given Trancopal immediately after the physical examination. Although 100 to 200 mg. three times a day were prescribed, the patient on his own responsibility increased the dosage of Trancopal to 400 mg. three times a day. This dosage was continued for three days and then gradually reduced over a ten day period. During this time, the patient continued to drive his truck. The muscle spasm was completely controlled and no apparent side effects were noted.

For the past six months, the patient has continued to take Trancopal 100 to 200 mg. as needed for muscle spasm, particularly during strenuous days.

**Clinical Reports on file at the Department of Medical Research, Winthrop Laboratories.*

Turn page for complete listings of Indications and Dosage.

THE FIRST TRUE "TRANQUILAXANT"

Trancopal

potent MUSCLE RELAXANT

effective TRANQUILIZER

- In musculoskeletal disorders, effective in 91 per cent of patients.[1]
- In anxiety and tension states, effective in 89 per cent of patients.[1]
- Low incidence of side effects (2.3 per cent of patients). Blood pressure, pulse rate, respiration and digestive processes are unaffected by therapeutic dosage. It does not affect the hematopoietic system or liver and kidney function.
- No gastric irritation. Can be taken before meals.
- No clouding of consciousness, no euphoria or depression.

Indications [1-6]

Musculoskeletal:

Low back pain (lumbago, etc.)
Neck pain (torticollis)
Bursitis
Rheumatoid arthritis
Osteoarthritis
Disc syndrome
Fibrositis
Ankle sprain, tennis elbow
Myositis
Postoperative muscle spasm

Psychogenic:

Anxiety and tension states
Dysmenorrhea
Premenstrual tension
Asthma
Angina pectoris
Alcoholism

Now available in two strengths:

Trancopal Caplets®,
100 mg. (peach colored, scored), bottles of 100.

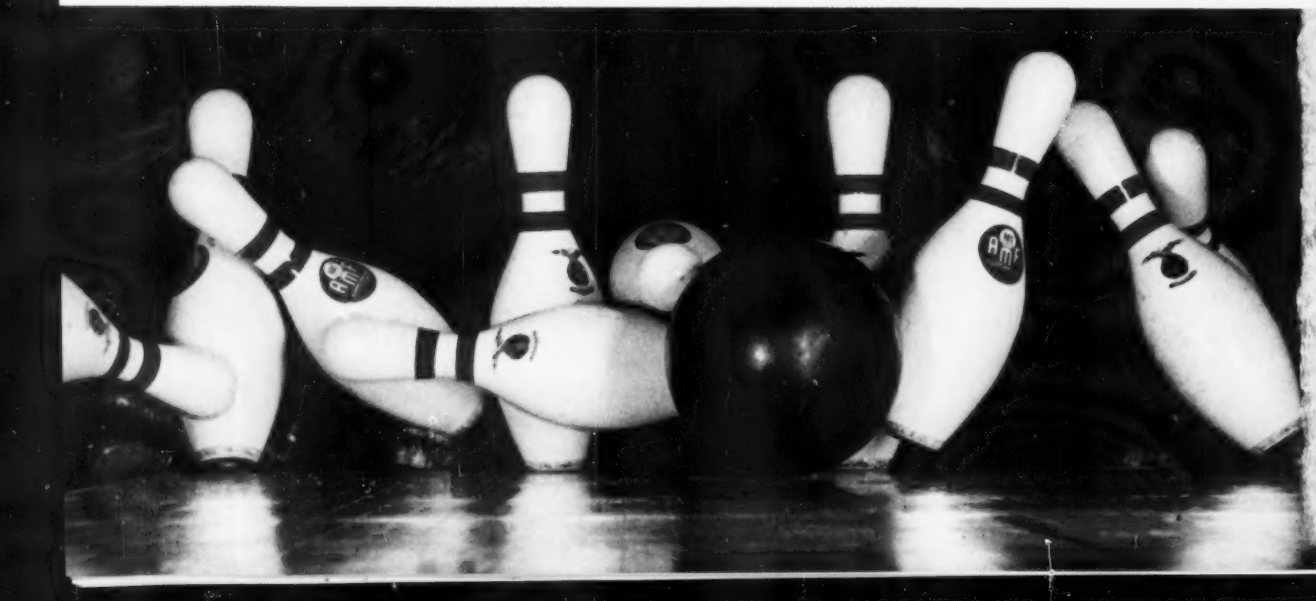
NEW STRENGTH

Trancopal Caplets,
200 mg. (green colored, scored), bottles of 100.

Dosage: Adults, 100 or 200 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

Winthrop LABORATORIES
New York 18, N. Y.

References: 1. Collective Study, Department of Medical Research, Winthrop Laboratories. 2. Lichtman, A. L.: New developments in muscle relaxant therapy, *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 3. Lichtman, A. L.: Relief of muscle spasm with a new central muscle relaxant, chlormezanone (Trancopal), Scientific Exhibit, Meeting of the International College of Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. 4. Ganz, S. E.: Clinical evaluation of a new muscle relaxant (chlormethazanone), *J. Indiana M. A.* 52:1134, July, 1959. 5. Mullin, W. G., and Epifano, Leonard: Chlormezanone, a tranquilizing agent with potent skeletal muscle relaxant properties, *Am. Pract. Digest Treat.* 10:1743, Oct., 1959. 6. Shanaphy, J. F.: Chlormezanone (Trancopal) in the treatment of dysmenorrhea: a preliminary report, *Current Therap. Res.* 1:59, Oct., 1959.



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An emotionally balanced patient
Thanks to your treatment and the help of Deprol, her depression is relieved and her anxiety and tension calmed. She eats well, sleeps well, and can return to her normal activities.

as it calms anxiety!

Deprol helps balance the mood by lifting depression as it calms related anxiety

No "seesaw" effect of amphetamine-barbiturates and energizers

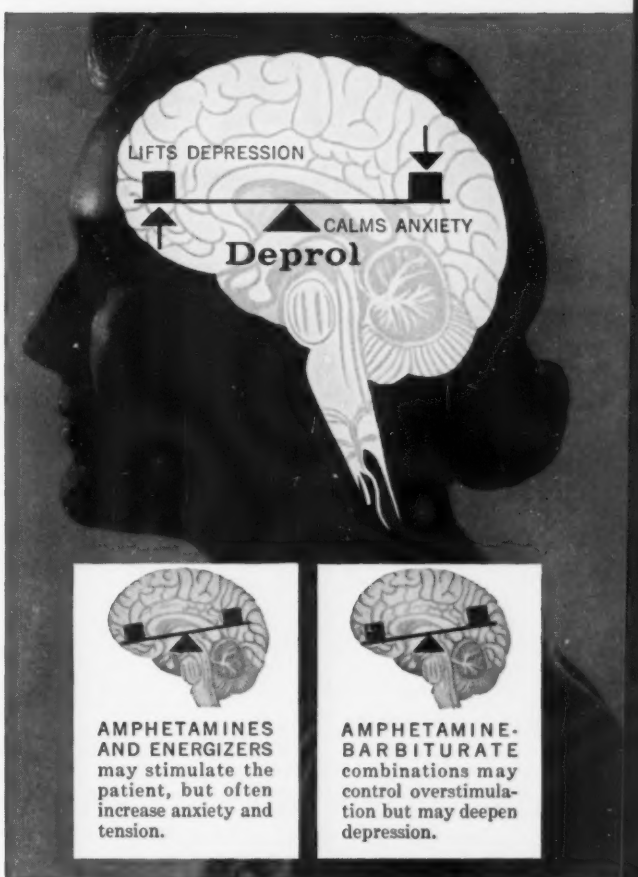
While amphetamines and energizers may stimulate the patient—*they often aggravate anxiety and tension.* And although amphetamine-barbiturate combinations may counteract excessive stimulation—*they often deepen depression.*

In contrast to such "seesaw" effects, Deprol lifts depression as it calms anxiety—both at the same time.

Safer choice of medication than untested drugs

Deprol does not produce hypotension, liver damage, psychotic reactions or changes in sexual function.

BIBLIOGRAPHY: 1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Bateman, J. C. and Carlton, H. N.: Deprol as adjunctive therapy for patients with advanced cancer. Antibiotic Med. & Clin. Therapy. In press, 1959. 3. Bell, J. L., Tauber, H., Santy, A. and Pulito, F.: Treatment of depressive states in office practice. Dis. Nerv. System 20:263, June 1959. 4. McClure, C. W., Papas, P. N., Speare, G. S., Palmer, E., Slattery, J. J., Konefal, S. H., Henken, B. S., Wood, C. A. and Ceresia, G. B.: Treatment of depression—New technics and therapy. Am. Pract. & Digest Treat. In press, 1959. 5. Pennington, V. M.: Meprobamate-benactyzine (Deprol) in the treatment of chronic brain syndrome, schizophrenia and senility. J. Am. Geriatrics Soc. 7:656, Aug. 1959. 6. Rickels, K. and Ewing, J. H.: Deprol in depressive conditions. Dis. Nerv. System 20:364, (Section One), Aug. 1959. 7. Ruchwarger, A.: Use of Deprol (meprobamate combined with benactyzine hydrochloride) in the office treatment of depression. M. Ann. District of Columbia 28:438, Aug. 1959. 8. Settel, E.: Treatment of depression in the elderly with a meprobamate-benactyzine hydrochloride combination. Antibiotic Med. & Clin. Therapy. In press, 1959.



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DOSAGE: Usual starting dose is 1 tablet q.i.d. When necessary, this may be gradually increased up to 3 tablets q.i.d.

COMPOSITION: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

SUPPLIED: Bottles of 50 light-pink, scored tablets. Write for literature and samples.

WALLACE LABORATORIES / *New Brunswick, N. J.*

CD-136

Is one vegetable oil a better cholesterol-depressant than another?

Yes...the one the patient prefers for taste.

No leading vegetable oil can claim superiority over Wesson in its serum cholesterol-depressant effect. As a diet must be eaten to be effective, *the preferred appetite appeal of Wesson* is most important. Through the years, Wesson has been consistently favored over the next selling oil, particularly for flavor (blandness), odor and lightness of color*. Weason *encourages* the patient to stay on the prescribed diet.

Quality and uniformity you can depend on. Wesson has a poly-unsaturated content better than 50% . Only the lightest cottonseed oils of the highest iodine number are selected for Wesson and no significant variations in standards are permitted in the 22 exacting specifications required before bottling.

Each pint of Wesson contains 437-524 Int. Units of Vitamin E.

Where a poly-unsaturated oil is called for in the diet, Wesson satisfies the most exacting requirements (and the most exacting palates!).

Wesson's Important Ingredients:

Linoleic acid glycerides	50% to 55%
Phytosterol (predominantly beta sitosterol)	0.4% to 0.7%
Total tocopherols	0.09% to 0.12%

Never hydrogenated—completely salt free

*Substantiated by sales leadership for 59 years and reconfirmed by recent tests against the next leading brand with brand identification removed, among a national probability sample.

For the first time

CONVENIENCE and ECONOMY

for that all-important first dose of broad-spectrum antibiotic therapy

New

TERRAMYCIN®

brand of oxytetracycline

INTRAMUSCULAR SOLUTION

Initiation of therapy in *minutes after diagnosis* with new, ready-to-inject Terramycin Intramuscular Solution provides maximum, sustained absorption of potent broad-spectrum activity.

...and for continued, compatible, coordinated therapy

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CAPSULES

Continuation with oral Cosa-Terramycin every six hours will provide highly effective antibacterial serum and tissue levels for prompt infection control.

The unsurpassed record of clinical effectiveness and safety established for Terramycin is your guide to successful antibiotic therapy.

Supply:
*Terramycin Intramuscular Solution**
100 mg./2 cc. ampules
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Cosa-Terramycin is also available as:
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Complete information on Terramycin Intramuscular Solution and Cosa-Terramycin oral forms is available through your Pfizer Representative or the Medical Department, Pfizer Laboratories.

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Tetracycline-Triple Sulfa Combination (TETREX® c̄ T/S) in the Treatment of INFECTION

It is generally agreed that it is ideal to withhold antibiotic and chemotherapeutic drugs until after sensitivity tests show which antibacterial agent will be most effective. But very often, in actual practice, the physician knows that delay in starting antibacterial treatment may be detrimental to the welfare of his patient. He must then select the therapy to meet the most serious and immediate threats to the patient.

Why Combination Therapy?

Certain infections do not respond as well to a single agent as to a combination. *Hemophilus influenzae* infections, which are frequent in children, are a particularly serious threat to infants and children up to about 3 or 4 years of age since they have not yet built up any appreciable immunity. Serious complications such as influenzal pneumonia, empyema, or meningitis may develop, especially in this age group. In fact, except for those periods when meningococcal meningitis is epidemic, *H. influenzae* is the most frequent cause of meningitis.[1] This gram-negative organism is highly susceptible both to the tetracyclines and to the sulfonamides. Even in severe infections, therapeutic failure can be virtually eliminated by giving sulfonamides plus tetracycline.[1] These two agents together constitute the treatment of choice, and give better results than either alone.[2]

Sulfonamides remain the drugs of choice for all meningococcal infections, including meningitis. They readily penetrate the blood-brain barrier and pass into the cerebrospinal fluid in good concentrations.[3] In treating overwhelming meningococcal infections, and complicating infections of the upper respiratory tract caused by other organisms, the addition of tetracycline to sulfas can be valuable.[4]

In recent years the sulfonamides have again been prescribed more and more frequently. In certain serious infections, better results can be obtained with a combination of antibiotic and sulfonamide than with either drug alone (e.g., severe pneumococcal pneumonia or pneumococcal meningitis[5]). Furthermore, mixed infections, to which young children are particularly susceptible, often respond only to combination therapy such as tetracycline with sulfonamides (TETREX c̄ T/S).

Why Triple Sulfas?

Some sulfonamides, though therapeutically useful, frequently crystallize and cause renal damage. Sulfonamide mixtures are designed to prevent this effect. It is known that different substances can coexist in solution without interfering with each other's solubility. In such a solution each component behaves as if it alone were present. Thus, a much larger total amount of sulfonamide can exist in the urine without precipitating if a mixture is administered than if the same amount of only one compound is given.

Similarly, there is less danger of hypersensitivity with mixtures. The incidence of sensitization varies directly with the dosage and is limited to the particular sulfa given. Simultaneous use of several sulfa compounds, each in partial dosage, tends to keep each drug below its own sensitization level.[3] As with all sulfonamides, it is advisable to check for possible blood dyscrasias, rash, or renal toxicity during extended administration.

TETREX c̄ T/S, by combining only 167 mg. each of sulfadiazine, sulfamerazine, and sulfamethazine, practically eliminates serious renal damage and sensitization reactions due to sulfonamides while retaining the therapeutic efficacy of the total dose.

TETREX c̄ T/S can be administered with confidence in all severe and mixed infections due to tetracycline-sensitive and sulfonamide-sensitive organisms, including infections of the upper respiratory, urinary, and gastrointestinal tracts.

References: 1. Alexander, H. E.: The hemophilus group. In: Dubois, R. J.: Bacterial and Mycotic Infections of Man. Ed. 3, Philadelphia, J. B. Lippincott Co., 1958, p. 470ff. 2. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics. Ed. 2, New York, The Macmillan Co., 1956, pp. 1322-1323. 3. Beckman, H.: Drugs — Their Nature, Action, and Use. Philadelphia, W. B. Saunders Co., 1958, pp. 527-528. 4. Dingle, J. H.: Meningococcal infections. In: Cecil, R. L., and Loeb, R. F.: A Textbook of Medicine. Ed. 9, Philadelphia, W. B. Saunders Co., 1955, p. 196ff. 5. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics. Ed. 2, New York, The Macmillan Co., 1956, p. 1308.

clears the tineas from head to toe– orally

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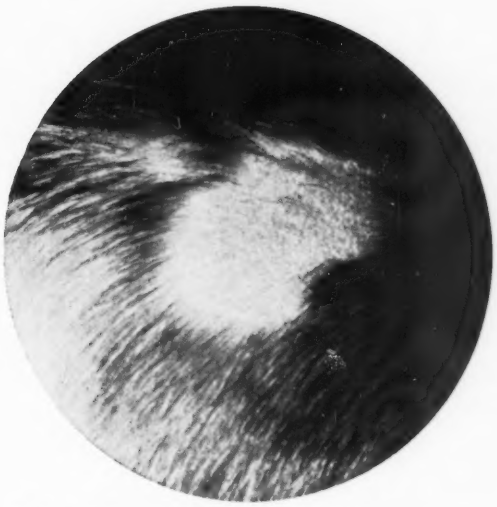
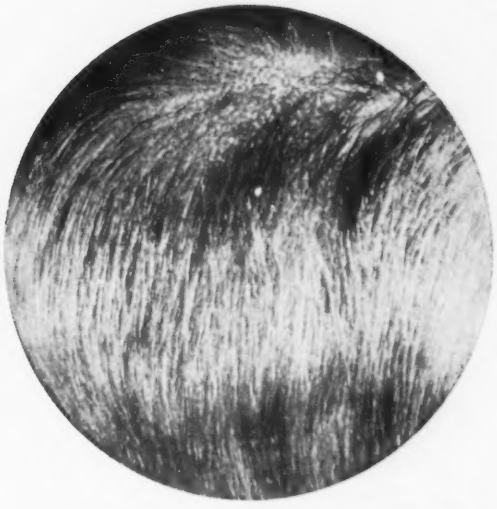
In tinea capitis



Before FULVICIN: Tinea capitis *(Microsporum audouini)* in a 7-year-old boy.



After FULVICIN: Normal, new hair growth after 6 weeks of oral therapy.

Photos courtesy of M. M. Nierman, M.D., Calumet City, Ill.

Lesions clear, cultures become negative in

tinea corporis: 4 to 5 weeks[1]
tinea cruris: 4 to 6 weeks[1]
onychomycosis: 4 to 6 months[1]
tinea pedis: 6 to 8 weeks[1]

first *oral* fungistat to penetrate keratin *from the inside*... acts to check invading ringworm fungi *(Microsporum, Trichophyton, Epidermophyton)*...usually well tolerated, side effects rare in therapeutic doses.

For complete information about dosage, indications and precautions consult Schering Statement of Directions.

Packaging: FULVICIN Tablets, 250 mg., bottles of 30 and 100.

1. Robinson, H. M., Jr., *et al.*: Griseofulvin, Clinical and Experimental Studies, A.M.A. Arch. Dermat., in press.

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Putting Psychiatry Back into Medicine

By Frank J. Ayd, Jr., M.D.
Baltimore, Maryland

THE development of new treatment techniques, especially the tranquilizing drugs, broader insurance coverage for psychiatric disorders, and more private practicing psychiatrists have increased the demand for admission of mental patients to general hospitals. Yet more than half of the general hospitals in the United States never admit a known psychiatric patient, one-third admit such patients solely for diagnosis or for emergency treatment, and only 1 per cent have a psychiatric service even though mental illness is America's number one medical problem.

Psychiatrists are partly to blame for this for not aggressively waging a more persuasive campaign to dispel the misunderstandings and misrepresentations of psychiatric patients and their treatment. However, even when general hospital administrators recognize that they can increase the usefulness of their institution by accepting the psychiatric patient, they contend that they cannot do so because they lack the space, personnel, and finances to set up a psychiatric division separate from the other specialty services. This is regretable, for it need not be. The few general hospitals without a special psychiatric unit which have accepted psychiatric patients have shown that such a department is not absolutely necessary.

The Franklin Square Hospital in Baltimore is a general hospital without a separate psychiatric division which admits psychiatric patients to private, semi-private, and ward beds on the medical service. Initially this program was passively opposed by some of the medical and nursing staff who were influenced by past prejudices and misunderstandings regarding the nature and treatment of mental illness. These people expressed fears of suicides and of excited patients disrupting the hospital routine and disturbing the non-psychiatric patients. Nurses needed reassurance that the mental patient would not endanger them nor consume an inordinate amount of nursing time. These fears have been replaced by an acceptance and endorsement of the psychiatric program by all hospital personnel.

Among the first to be admitted were acutely and moderately disturbed schizophrenic and potentially suicidal manic depressive and involutional depressive patients. The successful management of these individuals demonstrated that good care could be provided for all types of psychiatric disorders without the need of isolating the patients and without disturbing either the other patients or the hospital routine. Consequently, the hospital became more liberal in the admission of psychiatric patients. Since August 1, 1955 over 500 patients have been admitted and treated for such illnesses as acute brain syndromes, alcoholism, toxic psychosis, psychoneurotic disorders, schizophrenic reactions, manic depressive reactions, acute situational stress reactions, acute psychic disturbances in geriatric patients, and for a variety of psychoso-

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matic problems. Their treatment has consisted of psychotherapy, drug therapy, sleep therapy, electroshock therapy, and psychosurgery. The average hospital stay has been fourteen days, the minimum being three days and the maximum thirty-three days. Even though this group included seriously ill and potentially-suicidal patients, there have been no instances of overtly-disturbed behavior, nor has there been a suicide or a suicide attempt. In fact, these patients have created less disturbance than some patients on the medical, surgical, and obstetric services.

To initiate a psychiatric service in a general hospital it is necessary to have the cooperation of the medical and nursing service. They must be at least partially convinced of the need for the program. They must leave to the attending psychiatrist the responsibility of the selection of patients to be admitted. They also must permit the psychiatrist to determine the type of nursing care necessary in each case. Thus the psychiatrist must be responsible for the complete care and management of the patient in the hospital. On the other hand, the psychiatrist must teach and supervise the internes, residents, and nurses. This is best accomplished by admitting only a few patients at first. As the competence of the house staff improves the program can be expanded.

The treatment of psychiatric patients in a general hospital without a separate psychopathic division has been facilitated by the tranquilizing drugs and the advances in electro-convulsive therapy. With disturbed patients particularly, the prompt administration of adequate doses of a tranquilizer is necessary. This produces a quiescent or somnolent state so that the patient lies quietly in bed and does not disturb others. In the beginning of this program, two or three patients were not given the tranquilizer as prescribed or the nurse failed to be sure they swallowed the medication. These individuals became disturbed and upset other patients. These infrequent untoward events were disguised blessings. They impressed on the doctors and nurses the absolute importance of good psychiatric and nursing care to avert management problems. In addition, similar episodes have since been avoided by giving initial medication intramuscularly rather than orally.

As soon as the tranquilizer produces its desired behavioral effect, individual and group psychotherapy and ancillary treatment such as occupational therapy is started. The latter consists of duties such as distributing mail, making beds, arranging flowers, and reading to the other patients. Group socializing, card games, television viewing, painting, and sewing are encouraged. These activities and visiting hours twice-daily suffice to occupy the patient's day without the need of an occupational therapist or recreation director.

The majority of depressed patients are given electro-convulsive therapy, whether they are in a ward or semi-private room. Curtains are drawn around the patient's bed and the other patients are permitted to remain in the room. After the treatment a nurse, nurses aide, relative, or another patient remains with the patient until he has recovered.

This policy of open psychiatric treatment in a general hospital offers many advantages to the patient, the psychiatrist, the medical and nursing staff, and the community. It removes the stigma from mental illness. It invites early treatment for all types of psychiatric ailments. This enhances the prospect of an earlier and more complete remission. It reduces the cost of psychiatric care and spares many individuals the tragedy of years lost in a state institution.

Not all psychiatric patients are physically healthy. Many require what medicine, surgery, or the other specialties have to offer. In a general hospital, consultation with other specialties and extensive laboratory facilities are readily available. This assures patient and psychiatrist of a comprehensive medical evaluation. It also offers total medical-psychiatric care for those who need it. This is difficult to duplicate in most psychiatric hospitals.

A psychiatric service in a general hospital makes possible post-graduate instruction in basic psychiatric principles for the visiting and resident staff through ward rounds, seminars, and clinics. By observing the examination and treatment of patients they learn the impact of the emotions on body function and human behavior and to recognize basic personality type and the early manifestations of everyday psychiatric ailments. Anxiety and depression take on a new meaning for them. The patient becomes a person rather than a case. Internes, in particular, to whom the hospital has an obligation to educate, have an opportunity to understand and treat many of the emotional and mental problems which they will encounter in practice. Everyone learns that they and their patients profit from the early detection and treatment of psychiatric disorders. The internes and

residents are more prepared to recognize and care for patients on the other services who become delerious or psychotic from toxic, infectious, or traumatic causes. They are taught to take a more meaningful history and to place more reliance on knowing the patient and less on a battery of diagnostic laboratory tests. They become better diagnosticians and practitioners of medicine.

A psychiatric service not only instructs doctors; nurses also acquire a different insight than they obtained as a student affiliate in a mental hospital. They learn that all psychiatric patients are not hopelessly insane and that effective treatment can be given outside the mental institution. This changes their attitude toward mental illness and their care of the psychiatric patient. As a result, some excellent psychiatric nurses have been recruited. This has provided psychiatry with new emissaries who instruct other nurses and help the laity overcome fears and misconceptions that prevail among those unfamiliar with mental disorders and their treatment. Finally, a psychiatric service permits the hospital to fulfill its obligation to the student nurse by training her to nurse all types of people.

A marked change in the attitude of the nonprofessional hospital personnel toward psychiatry and the psychiatric patient has resulted from this program. It is quite different from their former concepts derived from movies, television, and distorted lay literature. Like the nurses, the nonprofessional personnel have carried their new knowledge outside the hospital to mold public opinion more favorably.

The intermingling of medical and psychiatric patients has had a salutary effect on the opinion of the medical patients regarding mental illness. They see the psychiatric patient treated on a par with them and not as individuals who should be put away. They learn that psychiatric treatment is not mysterious or to be feared. Relatives, friends, fellow workers, and employers of the psychiatric patients make the same observations. The uncharitable ideas of "insane," "crazy" people is being eradicated by demonstrating to all that the psychiatric patient can be treated as scientifically as patients with any other disease. Consequently, when the patient returns to his family, his job, and the community—he is accepted rather than excluded. This plays a major role in his rehabilitation.

The operation of this program has not required additional bed capacity, more hospital personnel, or a higher hospital budget. In fact, it has paid its own way since most of the patients have been covered by Blue Cross or commercial insurance companies which now pay for a minimum of twenty-one days' hospitalization for psychiatric treatment. Even without insurance, patients are more-than-willing to pay for psychiatric treatment in a general hospital because of what it means to them.

These are but a few of the benefits of a psychiatric service in a general hospital. A program such as that functioning at Franklin Square Hospital can be recommended for adoption by other general hospitals. It is feasible and practical. Its advantages outweigh the disadvantages. As more general hospitals become *general* (in fact as well as in name) by providing psychiatric care, the integration of psychiatry and general medicine will become a reality.

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DRUG ADDICTS

More drug addicts live in New York than in any other state in the United States, according to the current issue of *Patterns of Disease,* a Parke, Davis & Company publication for the medical profession. Of the four states in which most of the nation's addicts are concentrated, New York is first with 45 per cent of total active addicts, Illinois second with 14 per cent, California next with 13 per cent and Michigan fourth with 5 per cent.

Addicts live mainly in big cities, *Patterns* states, and are found largely in the poorest areas of such cities, "characterized by lowest income, poorest housing, unstable family structures, and highest delinquency rates."

Functional Disorders of the Digestive Tract

Philosophic and Nosologic Aspects

By H. L. Bockus, M.D.
Philadelphia, Pennsylvania

THE PRIMARY concern of the physician is the orientation of patient complaints, in order to choose a therapeutic regimen designed to achieve amelioration or relief of symptoms and prevention of recurrence. For simplification, perhaps one could state that gastrointestinal symptoms may be the result of one of the following mechanisms: (1) an alteration of visceral structure, that is, organic visceral disease; (2) a disorder of visceral function (so-called physiological functional disorder), (3) a disturbance of the mind, or (4) various combinations of the above.

Medicine is now returning to an older concept of considering all ailments as being psychosomatic or psychovisceral in character. In other words, ordinarily, organs or systems do not express themselves as isolated structures, but complaints rather are related to an interaction of physiologic and psychologic activity, whether the cause be organic or functional. It is agreed that there is no sharp line of demarcation between health and disease, nor often between structural change and simple functional or physiologic abberation from the expected normal. Nevertheless, it is essential for purposes of clinical understanding, of classification, and of nosological orientation to maintain for the present the designation "functional disorders." In order that functional disorders be brought into proper perspective, it is important for clinicians to keep in mind the history of the sequence of advances in clinical medicine which have brought us to our present understanding of functional disease. Walshe[13] has recently summarized, chronologically, the historical events upon which our present knowledge of clinical medicine rests. I have drawn upon his interesting account for the brief recitation of these events.

Without some knowledge of the cornerstone and solid foundations which culminated in our present structure known as "clinical medicine," one cannot fully appreciate the significance of the recent advances being made in our knowledge of functional disorders. The significant cornerstone which ushered in the renaissance of clinical medicine in the seventeenth century was laid by the great pioneer clinician, Sydenham, and the physiologist, Harvey. Sydenham began the study of ill persons by accurately describing symptoms and signs; he developed a scientific discipline in clinical medicine; he was the founder of nosology. It was not until the beginning of the nineteenth century, as a result of the work of Bichat and Corvisart in France, that the first important impetus was given to another solid foundation for the emergence of clinical medicine. I refer to the systematic development of pathologic anatomy and clinicopathologic methods. Then came further improvement in clinical techniques beyond that of simple inquiry, observation, and classification which had been introduced by Sydenham, namely, the utilization of objective methods of examination. The use of the stethoscope by Laennec was one of the first important steps in the development of objective methods of examination. This triad, consisting of symptom analysis, pathologic examination, and objective clinical examination, forms the basis of good clinical practice today.

The stage was now set for inquiry into the cause of morbid processes in the body. In the middle of the nineteenth century, "physiologic medicine" came to the fore. Magendie, Henle, Virchow and others began to interpet the signs and symptoms of disease in terms of function. Experimental methods in medicine became more and more important. Soon bacteriology was born (Pasteur) to be followed by advances in our knowledge as the result of research in chemistry, physics, the roentgen technique, and endoscopic methods. The utilization of these laboratory methods, valuable as they are, was not without a baneful effect. Clinical discipline and the art of medicine suffered somewhat

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as new laboratory procedures and methods of precision attracted more of the clinician's attention. This became manifest in observing the training of our young medical graduates. Fortunately, the pendulum is beginning to swing again toward a proper balance between clinical and laboratory methods in diagnosis and treatment. It has become obvious that clinical medicine must remain basically clinical—the human approach to human problems. This philosophy has been aided greatly by a return to the psychovisceral concept of body and mind developing together, and an appreciation of the clinical significance of the reaction of one upon the other—the concept of the need for consideration always of the "whole" (both mind and body). Certainly this concept is essential to the understanding of the so-called functional disorders.

The clinician is accustomed to the use of the term "functional disorder" to describe symptom configurations, not the result of demonstrable structural visceral change, but often occurring in association with disordered physiologic activity. It is recognized that medicine is on the threshold of great advances in our knowledge of this whole area of disturbed visceral function in relation to symptom configurations and to physiologic and structural visceral change. Methods of precision in orientation and diagnosis are beginning to emerge. The application of this newer knowledge is best achieved, not by the pure scientist, the psychiatrist or the experimentalist, but by the coordination of their efforts by the physiologically-minded organicist. The correlation of these additions to our knowledge of function in relation to patient behavior patterns should continue to remain in the hands of the physician who is steeped in clinical traditions and in clinical disciplines. Such background and training are essential to the over-all appraisal of disturbed physiology in relation to symptoms and signs. With such training there is less likelihood of errors in the understanding of the inter-relationships of symptom patterns, functional disorder, psychological derangement and organic disease.

Structural and Functional Inter-relationships.—

In the second Croonian lecture for 1950, Clark-Kennedy[2] clearly summarized a most acceptable philosophy dealing with psychovisceral inter-relationships. A quotation from Mohr[2] is pertinent:

> "There is no such thing as a purely psychic or a purely physical illness, but only a living event taking place in a living organism, which is itself alive only by virtue of the fact that, in it, psychic and somatic are united in a unity."

Fully recognizing the aforementioned wholeness (body and mind) in expression of altered function practically and at the bedside, the first step must be the carrying out of those objective studies that should rule out the structural or organic disease. A brief outline for practical orientation of the inter-relationshps between the organic and the functional may be considered at this time. There are four mechanisms which may be concerned.

1. Usually, organic disease gives notice of its presence initially as a result of disturbed physiology—motor, secretory, or vascular—because of stimuli arising in or near the disease process. The resultant subjective manifestations of disturbed function may not differ in any particular from complaints which are purely of functional origin. This is true since the physiologic disturbance of the part may be identical, whether the stimulus is local from organic disease, or whether it arises purely as a result of disturbed innervation. Certainly functional colonospasm may cause symptoms identical with sigmoidal diverticulitis or beginning obstruction from carcinoma of the sigmoid.

2. The symptom-configuration in organic disease is rendered more complex by the frequency with which anxiety and emotional tension are created by a knowledge of the presence of the organic lesion. In this way, secondary physiologic responses give rise to other symptoms, that is, the so-called functional overlay, often confusing the symptom-pattern produced by the organic disease. Innumerable examples may be given: (a) the overlay of emotional diarrhea, when the patient with ulcerative colitis is unduly disturbed emotionally; (b) the creation of high epigastric and low substernal discomfort due to the large magenblase from tensionally-induced aerophagy as a result of a knowledge of heart disease; (c) the lower abdominal discomfort, the result of a functional colonospasm in association with a recurrence of peptic ulcer.

3. The pain stimulus itself, if of great intensity, may cause sufficient disturbance of physiologic function to give rise to additional symptoms. It should be recalled that severe pain may affect

cardiac function if the heart is diseased (Gold et al[3]) or may have a deleterious effect on renal function (Jones,[7] Wolfe[16]). Causalgia is a good example of a painful disorder causing widespread physiologic disturbances and secondary pains.

4. Finally, in this discussion of structural-functional inter-relationships, one is confronted with the question of when, if ever, primary emotional tension may lead to organic disease. Nathaniel Hawthorne had this in mind when in the "Scarlet Letter" it was stated: "A bodily disease which we often think of as a thing apart and separate may after all be but a symptom of an illness in the spiritual part of our nature." Ample proof will be given of the effect of emotions on physiologic function and of the mechanisms of such action. Furthermore, we do know that hypothalamic stimulation and emotional shock can give rise to superficial organic lesions, like acute ulcer of the stomach or duodenum. Chronic peptic ulcer and ulcerative colitis are diseases which many believe may be the result of emotional tension. Without denying this possibility, it must be stated that proof is still lacking. I think it is of interest in this connection to mention that ulcerative colitis rarely occurs as a result of a continuous or recurrent motor disorder of the colon of emotional origin, that is, as an aftermath of the so-called irritable colon or mucous colitis. Furthermore, peptic ulcer disease is not commonly preceded by symptoms or signs to suggest a longstanding physiologic motor disorder of the pyloroduodenal region. Obviously the lack of antecedent physiologic unrest (presumably of emotional origin) does not preclude the possibility that these two severe organic lesions may not, in fact, be of emotional origin. It is merely emphasized that proof is lacking.

The Mechanism of Functional Disorders

At the outset, it should be realized that the physiologic disorders common to the gastrointestinal tract may be dependent upon influences other than disturbance of innervation of central or emotional origin. Chemical, hormonal, nutritional, and endocrinal influences, often acting via the vegetative nervous system, are also concerned with the complex regulation of organ function. The interplay of these factors is very complex and not well understood.

Other than primary neurogenic mechanisms, the endocrinal apparatus is probably most responsible for physiologic disorders of the alimentary tract. The pituitary-adrenal axis has received most attention in this regard. Pituitary hormones are released through hypothalamic stimulation. Adrenal hormones secreted in response to the discharge of hormones from the pituitary certainly exert a striking effect on gastric secretion and function (Gray and associates[5]), so that the adrenal steroids may very well be an important mechanism in the transmission of the effects of emotional stress to the digestive tract. The hypothalamus is, of course, the coordinating center, thus accounting for the interplay of humeral and nervous mechanisms responsible for coordinated physiologic function. Another common example of the role of endocrinal function in physiologic behavior patterns is that of so-called premenstrual tension. In many women, it is only during this premenstrual epoch that the symptoms of motor dysfunction of the alimentary tract occur. A good example is that of the irritable colon syndrome, which perhaps is even more common than migraine as a premenstrual symptom. The deranged endocrine balance occurring in association with hyperthyroidism often induces diarrhea as a result of secondary gastrointestinal hyperperistalsis. Innumerable examples could be given of so-called functional aberrations of digestive function which occur in association with endocrinal disorders.

Regardless of the actual *modus operandi*, most functional derangements of the alimentary tract can be attributed to the influence of emotional tension. The oft-repeated phrase, "the abdomen is the sounding board of the emotions," will bear further reiteration. No experienced gastrointestinal internist can deny the common occurrence of abdominal symptoms of emotional origin. Nevertheless, there remains a wide hiatus between the extent of existing knowledge in this field and its diffuse dissemination. This applies particularly to prevailing ignorance concerning the clinical characteristics of many functional disorders. Many of these are just as susceptible to concise description and classification as certain clinical entities of a structural nature.

The autonomic nervous system is intimately concerned with the regulation of all activity of the digestive tube and consequently the clinician must be familiar with its manner of activity in order to have an understanding of disordered function in relation to patient complaints and disease. The review of Thomas[13] nicely summarizes the present state of our knowledge of the autonomic nervous

system in relation to gastrointestinal function. Mention is made of the fading concept of the parasympathetics (vagus) and sympathetics as antagonistic influences which must be in good equilibrium in order that organ function be nicely coordinated. Increasing understanding of the neurohormones has been largely responsible for modification of concepts of autonomic nervous system function. Impulses over this system of nerves exert their effect by release of specific chemical substances. It is now known that all of the preganglionic and most of the parasympathetic postganglionic fibres release acetylcholine at their terminals, whereas most of the postganglionic sympathetic fibers release sympathin, now thought to be arterenal, and also epinephrine. Thus it has become customary to refer to cholinergic fibers or cholinergic effect and adrenergic fibers or adrenergic effect, rather than parasympathetic and sympathetic influence. Furthermore, the older concept of "parasympathetic, *versus* sympathetic" is no longer tenable since some postganglionic sympathetic fibers are cholinergic and some parasympathetic fibers are probably adrenergic.

It should be remembered that digestive functions may continue in the absence of extrinsic innervation of splanchnic and parasympathetic fibers by virtue of reflexes mediated through local nerve plexuses. However, good digestive function is best accomplished when impulses do arrive from higher centers over the cholinergic and adrenergic fibers. Although the thoracolumbar sympathetic nerves are thought to exert only a minor influence in regulation of gastrointestinal function, profound stimulation of these fibers may result in a decrease in functional activity. The parasympathetic system plays a more important role in the regulation of functional activity. The cutting of the vagus nerves may result in a cessation of gastric peristalsis for weeks or months, and a reduction in gastric acidity. The effect of vagotomy on intestinal motor and glandular function is not so striking. Here the autonomic plexuses evidently require less central guidance. Thomas well expresses the influence of the vagus as a means of transmission of central impulses, reinforcing the effect of reflexes mediated through the local nerves plexuses.

By turning our attention to the hypothalamus, the mechanism of influence of the emotions on visceral function, becomes clear. By virtue of nuclei and intercommunicating fibers, the hypothalamus is truly the center of coordination of emotional experience with the sympathetic nervous system and visceral function. McDonald[9] aptly called the hypothalamus the "head ganglion" of the autonomic nervous system. Connections between the cerebral cortex and the hypothalamus via the thalamus are well known. The areas of the cortex concerned with emotional experience have ready access to the hypothalamus (Murphey and Gellhern[11]), where connections with centers for sympathetic visceral control are made, thus completing the circuit responsibe for disturbed visceral function of emotional origin. Of great importance clinically is the possible development of so-called conditioned reflexes concerned with emotional responses (Babkin[1]). Conditioned emotional responses have been repeatedly demonstrated in animals and unquestionably occur in humans. This concept, so important to an understanding of psychovisceral disorders, is succinctly expressed by Thomas:

> "The development of a conditioned reflex is a demonstration of a fundamental law of nervous activity, namely, that once a chain of neurons has been made to function in unison, it comprises a path of low resistance within the central nervous system over which impulses will flow with greater ease the more the pathway is used. . . . Once a stimulus has found its way from one of the peripheral sense organs to one of the viscera by way of the central mechanism for emotional expression, a second (later) stimulus will tend to take the same path. If the stimulus is repeated often enough, the emotional response and the visceral reaction may become permanently associated, and the reaction may occur whenever that particular stimulus is exhibited. Indeed, any circumstances that are regularly associated with the stimulus may by themselves become effective stimuli."

In order to facilitate the understanding of functional disorders it is well to look upon emotions as having two components, psychologic and physiologic. A common emotion is that of fear aroused by a threat to life because of the innate instinct, self-preservation. The physiologic components comprise reactions giving rise to mobility for action, that is, running away or fighting it out, and complaints like palpitation, sweating, diarrhea, tachycardia, may appear.

Ample clinical experimental evidence has been supplied by Wolf,[16] Almy and Grace and many others in support of the concept of emotional physiologic disturbances causing subjective symptoms (so-called functional disorders). Visceral response to emotional trauma has been observed in suitable subjects with external fistula, with colostomy,

ileostomy, and gastrostomy stomas, by endoscopic, balloon and roentgen observations of the stomach and low sigmoid. Various disturbances of motility, secretion and blood supply have been noted. Japanese workers (Ikemi and co-workers[6]) have recently added support to the concept of emotional tension as a cause of so-called functional disorders utilizing hypnosis—thus adding perhaps more precision to the creation of a specific type of emotion created experimentally. Under these circumstances, both balloon and roentgen observations of physiologic visceral behavior were observed in normal and neurotic persons.

Further, acceptable proof for the emotional origin of many functional complaints is at hand in the practice of any gastroenterologist. One of the purest examples is that of so-called functional or emotional diarrhea, which will be described in more detail later.

Character and Classification of Local Physiologic Response to Emotional Stimuli.—The most common subjective symptom of a functional disorder is pain or something akin to pain. It is now generally recognized that true visceral pain in the abdomen usually is the result of changes in tension of smooth muscle of the alimentary tract, for example, spasm (hypertonicity) or distention, and that impulses initiated in this way are carried over afferent visceral fibers accompanying the sympathetics. It has been shown conclusively that stimuli of emotional origin are quite capable of giving rise to sufficient disturbance of motor physiology to set off pain impulses. Of course, there are many conditioning factors, such as strength of stimulus, pain threshold, and concomitant inflammation, which modify the intensity of the complaint. A discussion of these is not essential to the present thesis.

With advances in our knowledge concerned with the character of physiologic behavior patterns in relation to emotional change, it becomes increasingly desirable to develop a working classification or formula. One way in which this may be done is on the basis of the nature or character of the disturbed physiology. One might divide the physiologic disorders into three types, those characterized by: (1) hyperfunction, (2) hypofunction and (3) mixed types. Pending the accumulation of additional factual date, the accompanying simple schemata are presented.

This outline is not given with the idea that it can be used as a fixed classification, but rather to aid in clear thinking. It is believed that the physician should try to classify functional disorders based on the nature of the physiologic derangement when at all possible. It is in this way only that intelligent therapy can be applied. More important, the clinician must keep abreast of advances in our knowledge of psychovisceral disorders. This can be best accomplished by attempting to correlate in every instance the type of physiologic derangement, as determined by objective findings with the existing symptom configuration and the character of emotional charge. A schemata like the above seems to be the closest approach to a classification of the type of physiologic disorder which is now possible. Only prolonged observation by well-trained clinicians will determine how clear-cut and well-defined physiologic derangements of emotional origin really are. We cannot be sure how often secretory and motor hyper- and hypofunction coexist or how often one segment of the tract is overly active while another is underfunctioning as a result of the same emotional stimulus.

Relation of Emotional Charge to Type of Physiologic Disorder.—One may well ask: do specific emotions tend to initiate impulses which consistently cause a specific or uniform physiologic or somatic disturbance in the same person or in all persons? Study of conditioned reflexes previously mentioned (Murphey and Gellhorn[11]; Babkin[1]) support in some measure such a concept. This linkage of the emotional stimulus and the visceral response is the result of the activation of the same neuronal chain and the emergence of conditioned reflexes, which may well result in identical visceral reactions if the same stimulus is subsequently applied. Clinical observations support this concept. However, much remains to be done before various emotional trends with their complexities can be closely linked to constantly recurring visceral behavior patterns. In many of the reports on experimental human subjects, one is impressed with the very superficial nature of analysis or classification of the emotional content or charge alleged to be responsible for the visceral reaction. Psychiatry is in need of more factual physiologic knowledge before the precise correlation of specific emotions with consistent visceral behavior patterns is possible. However, great advances in our knowledge

I. HYPERFUNCTION

	Physiologic Behavior	*Functional Disorder*	*Symptoms*
MOTOR	1. Hypertonicity (segmental spasm)	Hypertonic colon Hypertonic ileum Pyloroduodenal irritability	Pain, constipation
	2. Hypermotility (general)	Rapid G.I. transit	Emotional diarrhea
	Gastric hyperperistalsis	Rapid stomach emptying	Epigastric distress
	3. Dysrhymthmia	So-called cardiospasm	Pain, Dysphagia
SECRETORY	Gastric hypersecretion	Hyperacidity (duodenal ulcer) (functional gastrosuccorrhea)	Regurgitation? Vomiting? Heartburn?
	Colonic mucus Hypersecretion	So-called neurogenic mucous colitis	Mucous discharge
MOTOR and SECRETORY	Hyperactivity Synchronized	Gastric hypermotility and hypersecretion	Epigastric distress
VASCULAR	Engorgement Congestion	Possible erosion Superficial ulceration	Related to concomitant motor disorder

II. HYPOFUNCTION

	Physiologic Behavior	*Functional Disorder*	*Symptoms*
MOTOR	Hypotonus Muscular Flaccidity Muscular Relaxation	Esophageal stasis (Achalasia) Gastric stasis Ileal stasis Constipation	Dysphagia Epigastric Fullness Anorexia Nausea Constipation
SECRETORY	Gastric Hyposecretion	Functional achlorhydria	Nausea(?) Anorexia(?)
VASCULAR	Ischemia	Concomitant of other disorders	?

III. MIXED FUNCTION

Evidences of hyperfunction and of hypofunction simultaneously in different segments of alimentary tract.

of these inter-relationships have been made. Practically, one may generalize concerning some classical psychologic attitudes. Certainly the "fighting" attitude, an emotional reaction which is characterized often by such modes as hostility, resentment, and aggressiveness, has been found to be quite often associated with visceral functional disorders characterized by spasm, pain, and hypersecretion. The opposite psychologic reaction, commonly referred to as "the running away" attitude, the attitude of "giving up" and the emotions associated with frustration, sadness, and grief are more likely to be linked to visceral hypofunctional responses. Symptoms of anorexia, nausea, and constipation are common. These are very crude examples of linkages between emotional charges and visceral function, but they do represent a beginning in this important phase of clinical medicine.

The factors responsible for the determination of the *site* of the physiologic visceral disorder in terms of emotional stimulus remain to be determined. Why is the esophagus affected in some (cardiospasm), the pylorus in others (pseudo-ulcer syndrome), the small intestine in others (emotional diarrhea), and the colon in still others (irritable colon)? Why do some persons persist in having a monosymptomatic disorder, for example, pyrosis, while others experience at different times functional derangement of all segments, perhaps one after another? Phylogenetic factors, genetic, familial, and early environmental influences are unquestionably concerned. Once a neuron circuit connecting the cerebrum with a viscus is used, the laws governing conditioned reflexes undoubtedly apply. The character and strength of the emotional stimulus play some part, perhaps in the

extent or degree of disturbance of visceral function, just as strength of pain stimulus determines the intensity and degree of radiation of subjective pain. Multiple sites of visceral dysfunction perhaps means only greater complexity and number of emotional charges—a greater number of pathways or circuits of least resistance or a greater number of conditioned reflexes. Time may well reveal the mechanisms involved in multiple concomitant as well as sequential types of funtional disorders.

Deep-seated mental disorders, particularly the organic psychoses, are in need of further evaluation in relation to frequency and type of occurrence of functional visceral disorders. Margolin and his associates[9] touch on this fundamental relationship in reporting the findings of dissociation of gastric function in relation to conscious and unconscious conflict states in a fistulous human subject. It is my impression that functional derangements of the alimentary tract are either less common in association with the psychoses than with the psychoneuroses or they have been more frequently overlooked in psychotic persons. The experienced clinician will at once become suspicious of a psychotic reaction, often schizophrenic in character, with an initial complaint of offensive breath or body odor or intestinal odors—symptoms which, in reality, cannot be substantiated by objective observation. Yaskin has stressed and frequently I have confirmed the occurrence of a constant bitter taste in the mouth in association with depression. Constipation and bad breath are other rather common complaints mentioned by the depressed person. However, too little is known and further studies are needed concerning the types of physiologic visceral disorders in association with the psychoses.

The Future of Orientation of Functional Disorders.—It is obvious that we are beyond the threshold of a better understanding and more concise orientation of the so-called functional disorders. Advances have been the result of increased interest on the part of physiologists, advances in psychiatric techniques and their application to non-organic psychologic disorders. Perhaps of even greater aid has been the development of a group of younger physicians basically trained in clinical disciplines, but with interest and training in psychovisceral research as well. I am confident that advances in our knowledge in this broad field of psychovisceral disorders will be steady and moderately rapid. Furthermore, absolute experimental proof of the important role of emotional tension in the pathogenesis of certain visceral diseases may be forthcoming. The possibilities for worthwhile research in these areas are limited only by subject interest and manpower. More rapid advances will occur if collaborative effort is more often practiced. I refer to combined studies by teams composed of a seasoned clinician, a physiologist, a psychiatrist, a radiologist, and an experimental surgeon. It is hoped that soon functional psychovisceral effections will be amenable to orientation and classification, which will be as satisfactory as the present pathologic classifications of organic disease.

A Platform for the Clinician

Clinical Orientation

For the diagnosis and care of patients suspected of having a functional disorder, I submit the following formula as a procedural outline which may prove helpful:

1. *Critical Analysis of Subjective Complaints.*—This should result in the establishment of an impression of the type and site of disturbed physiology, which in turn determines for the trained clinician the objective studies required and the order in which they should be performed.

2. *Objective Examinations.*—Such studies intelligently selected must not be neglected and certainly should not be abused. Two purposes are served. First of all, organic disease must be excluded as the cause of symptoms. Equally important the exclusion of carcinoma or other serious visceral disease serves the purpose of effective assurance of the patient in order to dissipate existing anxiety. Second, in the absence of structural disease, the objective examinations may serve to define clearly the character, site and extent of the functional derangement. Since most functional disorders are characterized by abnormalities in motor function, roentgen study is of greatest help.

3. *Appraisal of Personality and Emotion.*—In taking the history an appraisal of the emotional characteristics is ever in mind. At this time, relationships are sought between subjective complaints and emotional aberrations of any type. Environmental influences are carefully appraised. Habit patterns are recorded, as a measure of personality behavior trends and of degrees of tension. Eventually, an effort is made to classify the per-

sonality type as well as the character of emotional tension (fear, hostility, anger, frustration. . . .). One decides first of all whether the diagnosis of psychoneurosis is justified and, if so, obviously the type is designated as a part of the diagnosis.

From the standpoint of personality type, the simple classification recommended by Yaskin[15] is suggested:

(1) average normal
(2) neurotic (hysterical, hypochrondriacal, hypersensitive or compulsive-obsessive)
(3) syntonic (cycloid, extraverted)
(4) schizoid (shut-in, introverted)
(5) paranoid
(6) rigid
(7) constitutional psychopathic
(8) epileptic

If a neurosis is present it is classified. The more common types associated with functional gastrointestinal disorders include anxiety neurosis, conversion hysteria, anxiety hysteria, and compulsive-obsessive reaction. In many instances an actual psychoneurosis is not present. Rather, the simple appellation of emotional tension and its character will be applied and the reasons for this constitute a most important facet of the examination. One must also keep in mind a phenomenon closely allied with emotion, namely mood. Riggs[12] likens mood to the tides with their periodic change.

Floodtide is compared with exultation and ebbtide with dejection. Tidal swings in feeling states are universal. Individuals differ as to their depth and frequency. These modal variants may also determine changes in psysiologic behavior patterns in the alimentary tract and need to be borne in mind. In the most extreme form of modal change, an actual psychosis is present, namely the manic-depressive psychosis.

4. *The Complete Diagnosis.*—The diagnosis of a functional disorder should be concise. It ought to comprise first a precise description of the type of physiological disorder, for example, aerophagy (magenblase syndrome) or functional enterocolonopathy (irritable colon syndrome) or pyloroduodenal irritability. Second, the completed diagnoses will classify the emotional state. This shall comprise, when possible, the (1) personality type, (2) the type of psychoneurosis, if any, and (3) the dominant emotions and moods.

5. *Therapeutic Principles.*—Attention to the organ or system derangement will follow orthodox lines. This embraces physiologic rest of the part, accomplished usually by diet and relaxing medication. Specific therapy will depend on the character of the physiologic disorder.

In functional derangements, treatment directed toward the organ *per se* must be looked upon as being purely palliative. Specific treatment is the adoption of measures directed toward removal of the cause. In these instances, unless some constitutional or endocrinal abnormality exists, emotional and tensional factors are at fault. A careful explanation of the mechanism of symptoms has great importance. Then specific therapy for the relief or amelioration of the emotional tension is undertaken. The institution of measures for achievement of better mental hygiene, in most instances, may be carried out by the psychoviscerally-minded internist. Psychotherapy likewise entails attention to environmental problems, the removal of tensions where they exist, and finally an attempt to have the patient achieve a greater degree of equanimity. If resistance is encountered or the patient proves refractory, then a psychiatrist will need to make a more concise psychologic appraisal and organize therapy accordingly.

Common Functional Disorders

If one needs to stress the importance of a better understanding of functional disorders, it is necessary only to refer to their incidence. These affections give rise to a great number of office consultations with the general practitioner, and well over 50 per cent of office visits to the gastrointestinal internist. Let us examine briefly some of the more common functional disorders of the alimentary tract. In my experience, the following conditions make up the great bulk of functional gastrointestinal diseases. They are arranged in the order of their frequency.

Aerophagy
Functional enterocolonopathies (intestinal neuroses)
  (a) So-called irritable colon (enterocolonospasm)
  (b) Mucous colitis
  (c) Emotional diarrhea
Pyrosis
Pseudo-ulcer syndrome
Functional nausea and anorexia
Functional regurgitation and vomiting
So-called cardiospasm (leading to mega-esophagus)
Biliary dyssynergia
Disagreeable taste (often bitter), bad breath, etc.
Rumination
Hysterical bloating (hysterical abdominal proptosis).

By way of example, several of the more common disorders will be described briefly.

Aerophagy

Symptoms the result of air swallowing comprise the most common gastrointestinal functional complaints, yet frequently these complaints are misinterpreted. The swallowing of air is a universal practice. Excessive air swallowing may arise in many ways. It occurs while eating, if food is gulped, or if food contains an excess of gas. An excess of air is ingested if liquid is improperly swallowed, or if gum is chewed. In some patients, smoking gives rise to excessive swallowing. Most commonly, aerophagy is merely the result of frequent swallowing when not eating or drinking, as a reaction to emotional tension, and once initiated, it may easily become a habit. Air-swallowing may be associated with dry mouth or with hypersalivation. Whether or not symptoms are produced (and the character of the symptoms) depends upon what happens to the swallowed air. Most of it is not absorbed owing to its high nitrogen content. If the air is not eructated, the greater amount passes down through the alimentary tract and is expelled.

Importance of Aerophagy to the Gastroenterologist.—Obviously, the symptoms of aerophagy are referred primarily to the digestive tract. It is unfortunate that air-swallowing frequently occurs as a functional overlay of organic disease. Excessive air swallowing occurs as a reaction to pain produced by a structural lesion, or as a result of anxiety induced by the morbid process. The gaseousness which accompanies most organic disease is of this origin. This is not always appreciated, for example, many aerophagic persons are quite disappointed when gaseous dyspepsia is not alleviated by removing a diseased gall bladder, because the physician or surgeon has not explained that operation will not necessarily relieve the gaseousness.

Belching is almost always the result of aerophagy. It may be the only clinical manifestation in the fortunate person who eructs most of the swallowed air before it has had a chance to bring about changes in intravisceral pressure. The anatomic shape of the stomach and the ease with which the sphincter at the cardia can relax probably determine whether swallowed air is eructated or whether it remains in the stomach or passes on down the alimentary canal to cause other annoying symptoms. The aerophage who easily belches his swallowed air may annoy his neighbor, but he suffers little.

Early postprandial pressure, bloating, and discomfort in the epigastrium, substernally and at the left rib margin, are most commonly the result of aerophagy. These symptoms are due to intragastric pressure changes induced by the large "magenblase." Symptoms of this sort are the cause of frequent visits to the physician. Angina pectoris, hiatus hernia, peptic ulcer, cardiospasm, and gallbladder disease are often suspected by the physician.

Gaseousness, characterized by borborygmus, generalized abdominal cramping, bloating, and distention, is commonly the result of aerophagy. Flatulence, formerly attributed most often to intestinal putrefaction, fermentation, or constipation, is likewise of aerophagic origin in most instances.

Importance of Aerophagy to the Cardiologist.—Symptoms caused by a large "magenblase" often suggest heart disease to the layman. The location of the pain, its radiation, and the associated sensation of oppression in the chest, or smothering, may closely simulate angina pectoris.

Often the first suspicion of, or actual knowledge of, heart disease gives rise to considerable anxiety; the latter may actually initiate excessive air swallowing. It is common experience to note that the gaseousness in cardiac patients dates its onset from the patient's first knowledge of the presence of a heart affection. Aerophagy engrafted on angina pectoris further complicates the symptom pattern and unquestionably, in some patients, actually increases the frequency and severity of attacks of angina. Every cardiologist is or should be, familiar with this relationship, for it must be given consideration frequently in the treatment of true angina pectoris.

Importance of Aerophagy to the Surgeon.—The most common cause of abdominal distention in the immediate postoperative period is excessive air swallowing. Before this was recognized, serious complications occasionally arose. It is highly probable that fatal, so-called gastric dilatation was of this origin in many instances. In recent years, the improvement in anesthesia, the prevention of dehydration (dry mouth), and the more sensible use of opiates have done much to prevent post-

operative distention due to air swallowing. When it does occur, prompt gastric intubation usually prevents the development of serious consequences.

In intestinal obstruction, regardless of its cause, a considerable part of the gaseous distention is the result of swallowed air. Even though the tension above the point of obstruction is relieved by the Miller-Abbott tube, it is occasionally necessary to put an additional tube into the stomach, to prevent air which is continuously swallowed from causing further distention. The presence of the intestinal tube actually causes air swallowing in many patients. It is likely that attacks of intestinal obstruction due to adhesions occur more frequently in the aerophagic person as a result of kinks produced by the increased gaseous content of the intestine.

Importance of Aerophagy to the Psychiatrist.—Alert psychiatrists are becoming aware of the significance of aerophagy in the mechanism of subjective complaints in the emotionally-tense person. Certainly it is common experience to note the direct relationship which exists between the state of emotional tension, on the one hand, and the degree of gaseousness and symptoms resulting therefrom, on the other. I think it is as simple as this: *excessive swallowing is a frequent reaction to nervous tension.*

Diagnosis of Aerophagy.—Its detection is easy. Aerophagy should be suspected always when the symptoms suggest gaseousness in any form. In taking the history, the most common causes of excessive swallowing should be sought. The possibility of aerophagy should be considered in all emotionally-tense patients who have abdominal complaints.

During the course of the interview and physical examination, which often renders nervous persons more tense, the act of frequent swallowing will be often observed in the aerophagic person. On percussion, an area of tympany in the region of the left hypochondrium, the result of a large "magenblase," may be outlined, or excessive gas content in the intestine may be detected. The observing fluoroscopist may likewise discern the presence of excessive swallowing of air during the barium meal study, and demonstrate a larger than normal "magenblase" on the film.

Treatment.—The cure of aerophagy is more difficult than its detection. Alleviation rests with measures adopted to eradicate the cause. If air-swallowing is due to a cause other than reaction to nervous tension, such as gum-chewing, excessive smoking, or faulty mastication, its eradication may be easy. When aerophagy is of nervous origin, usually the cure is more difficult. Assurance of the absence of cancer or heart disease must be based on appropriate studies. An explanation of the manner in which symptoms may be the result of excessive swallowing is given. Likewise, the relationship between nervous tension and swallowing is discussed. Judicious psychotherapy will prove of greater value than diets or medication, although a sensible dietary restriction and placebos may prove of some benefit in the original outline of therapy.

Intestinal Neuroses

The intestinal neuroses rank a close second in the order of incidence of functional disorders of the alimentary tract.

Emotional Diarrhea.—This is not the most common intestinal neurosis, but it is the most classic and the easiest of description.

Through the ages, diarrhea has been known to occur as a reaction to fear. In its classic form, chronic emotional diarrhea is often associated with the reaction of fear or guilt. Commonly the symptom pattern is characteristic. Diarrhea is usually the only symptom, unaccompanied by any great discomfort, except possibly urgency, and unassociated with constitutional symptoms. The diarrhea may be of long duration (in some instances weeks or months), yet nutritional deficiency is rarely encountered. Usually the stools are watery or mushy and contain no pathologic products, such as blood or pus. Clinically, emotional diarrhea closely simulates gastrogenous diarrhea, or the diarrhea of thyrotoxicosis.

The roentgenologic pattern is likewise classic. Emotional diarrhea causes more rapid gastrointestinal motility than any primary organic disease of the alimentary tract. After ingestion of barium, the head of the meal may be in the rectum within one-half to an hour, with barium still remaining in the stomach. No abnormality of the intestinal lumen or mucosa is seen.

Definitive treatment comprises intelligently-applied psychotherapy. The emotional quirk is often obvious, and not rarely the internist may be able to recognize and to assist in the eradication of

its cause. If the latter is not obvious, a psychiatrist may be needed. A bland diet and physiologic doses of a cholinergic agent with phenobarbital prove efficacious until psychotherapy has become effective. The prescription of opiates for the ambulatory patient, in order to alleviate the diarrhea, or because of the "fear of soiling," is a dangerous practice. Habituation to opium may result.

Colonic Neurosis (Irritable Colon, Spastic Colon, Neurogenic Mucous Colitis).—The term "irritable colon" is now commonly applied to a hyperfunctioning colon, which gives rise to symptoms. The most striking functional derangement is that of hypertonicity or spasm of the colon, particularly the distal colon. Hypersecretion of mucus may accompany the motor change, and if mucous discharge is a prominent feature, the label "neurogenic mucous colitis" may be appropriate. Colitis is a poor term, since actual inflammation of the colon can rarely be demonstrated. Another evidence of colonic hyperfunction may be that of excessive absorption of fluids from the right colon, accounting to some extent for the very great dryness of the stools which is seen in some cases. Even the designation "colonic neurosis" is not adequate, as more recent study suggests that the small intestine commonly shares in the physiologic dysfunction. This may be manifest as intermittent small intestinal hypermotility, giving rise to diarrhea. Not infrequently, one notes roentgen evidence of hypertonicity and spasm in the small intestine, as well as in the colon. (Kalser and coworkers[7]).

Symptom Pattern.—usually this ailment begins in youth or early adult life. One of the predominant features is the intermittency or periodicity of symptoms. Constipation is the most common manifestation and the irritable colon is one of the very common causes of constipation. This symptom is rarely present constantly, as in simple constipation, (the result of faulty habit). It may be present for days or weeks, alternating with periods of normal bowel function, or with short bouts of diarrhea. The latter is likely to occur following the use of ordinary laxatives or enemas. The stools are often pathognomonic in their appearance. Small hard scybala or thin cylindrical pieces are typical. There may be a concomitant mucous discharge.

The second symptom of importance is pain, often related to defecation and commonly relieved by a bowel movement. Usually the site of pain is in the hypogastrium, and often in the lower left abdominal quadrant. In its most severe form, the pain of diverticulitis or of beginning colonic obstruction from neoplasm may be simulated.

Functional disturbances of other systems frequently coexist with the irritable colon syndrome. These include particularly disturbances of menstruation and symptoms of irritability of the lower genito-urinary tract.

Emotional Pattern.—It is recognized that all instances of the type of colonic dysfunction under discussion are not entirely the result of emotional stress. Any mechanism capable of affecting the innervation of the intestines could account for disturbed physiology with symptom production. Nutritional, hormonal, and endocrinal factors undoubtedly play a part in the pathogenesis in some cases. Nevertheless, observation of these patients through the years causes one to assign to emotional tension the most important role in etiology. This does not mean that all of these patients are psychoneurotic. I believe most people experience this type of dysfunction in a mild form from time to time. The occurrence of colonic dysfunction and its severity are dependent upon the strength of the stimulus and the susceptibility of the involved part. Physical fatigue and prolonged tension may be sufficient to bring about the functional derangement even in subjects who are well-balanced emotionally. Anxiety and various disturbing life situations are noted to be present in many patients. Often attacks may be related to specific emotional incidents. Subjects who experience severe mucous colitis in association with the motor dysfunction are more often found to be profoundly neurotic. However, true mucous colitis is relatively rare, when compared with the incidence of the so-called irritable colon, characterized by motor dysfunction alone.

Diagnosis.—It is not possible to differentiate the irritable colon from organic colon disease, particularly neoplasm, on the basis of symptom analysis alone. For this reason, a definitive diagnosis of an intestinal neurosis is made by exclusion. Objective examination, particularly the digital examination of the rectum, fecal analysis, sigmoidoscopy, and roentgenologic study, is needed. In the presence of typical symptoms, the exclusion of organic

disease in the obviously tense person is sufficient to make the diagnosis. The objective examinations referred to will often indicate the presence and the degree of colonic dysfunction. An effort is made to classify the type of emotional disturbance.

Therapy.—As in all functional disorders, the basic therapy is removal of the cause when possible. Measures adopted to relieve the emotional stress, together with, in many patients, the prescription of physical rest or environmental change (or both), will bring about symptomatic relief. Intestinal rest with a sensible bland diet, together with mild sedatives and drugs to inhibit the overactivity of the parasympathetic innervation, are usually prescribed with benefit. Advice concerning the deleterious effects of strong laxatives, enemas, and irrigations is an essential part of the regimen. Small doses of one of the hydrophilic colloids, the use of non-irritating food laxatives (prune juice), and at times mineral oil, will usually suffice to overcome the periodic constipation.

Heartburn (Pyrosis)

One of the most annoying functional disorders is pyrosis. It is annoying to the physician because of the imminent need to exclude organic disease and because functional pyrosis is difficult to cure. Usually the patient describes the sensation as a feeling of warmth or heat, experienced substernally or in the epigastrium after eating. In the practice of the gastrointestinal internist, its incidence as a chief complaint is high. Tumen and Cohn[14] recently recorded its occurrence in 22 per cent of 120 patients.

Mechanism.—Chester Jones and others have experimentally demonstrated one mechanism capable of producing pyrosis, that is, neuromuscular changes in the lower esophagus. These changes can be brought about by balloon distention, or the induction of muscular spasm by the rapid introduction of fluids into the lower esophagus. Regurgitation accompanies the pyrosis in some experimental subjects when antiperistaltic movements in the esophagus are striking. The frequency of heartburn in hiatus hernia and in insufficiency of the cardia is, in all likelihood, to be explained in this way. Because of the experiments—indicating that pyrosis may be the result of disturbed motor physiology of the lower esophagus, many physicians have assumed that the symptom is always of this origin. Further exploration of other possible causes for heartburn is needed. The complaint is very common, and evidences of esophageal dysfunction are not always detected by roentgenologic or clinical study so that other possible mechanisms should be sought. One should not dismiss the possibility that pyrosis may be the result of the same mechanism which many believe accounts for peptic ulcer distress, namely, changes in gastric and duodenal tonus and motility. Supporting this thesis is the observation that in some patients with duodenal ulcer, the chief complaint is that of pyrosis, rather than the more usual "gnawing hunger" sensation. The rhythm of occurrence of the symptom late after meals with food relief suggests that the burning may be looked upon as a substitute for the usual sensation of dull ache during ulcer activity. Late postprandial pyrosis, in the absence of ulcer, may possibly be the result of a functional disturbance in the pyloroduodenal area rather than in the esophagus.

Clinical Configuration.—Functional pyrosis may be a lifelong complaint, occurring almost daily in some patients. Often it is of irregular, periodic occurrence, set off by some precipitating factors as faults in eating, or overindulgence in tobacco or alcohol. Its occurrence is almost always postprandial (one-half to two hours), and temporary relief, as in ulcer distress, is afforded by antacids and food. Belching, nausea, and regurgitation are common accompaniments. Tensional factors seem to be of most importance as precipitating influences. Emotional agitation and nervous irritability are frequently seen in the patient with functional pyrosis. In some instances, a profound, deep-seated psychoneurosis is present.

Treatment.—After the exclusion of organic disease, correction of faults in hygiene and psychotherapy constitute the most important items in treatment. The latter is most often needed in patients with constantly recurring pyrosis, unrelated to hygienic faults. The internist may be of some help in the correction of obviously superficial tension, but deep-seated therapy will be required in the truly psychoneurotic person. A comprehensive psychologic analysis of a group of patients who exhibit pyrosis, as a "monosymptomatic neurosis"

(Continued on Page 2006)

Lesions of the Macula and Perimacular Region of Involutional and Senile Origin

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ALTHOUGH the diameter of the macula is only about 2 mm., this tiny circle at the posterior lobe of the eye can exhibit a bewildering range of clinical findings. In investigation of macular lesions, the most important symptom of which a patient complains is lack of his central vision in varying degree. There are few diseases of the macula which do not produce some significant loss of vision, thus bringing the patient for an examination. It is important to ascertain how long the vision has been defective in one or both eyes, and whether the defect in vision was gradual or rapid in onset. Patients with lesions of the macula almost never complain of pain in or around the eye. In recording the history, the patient's other medical problems must be noted. It has often been said that patients with lesions of the macula will complain of micropsia or macropsia or alterations in the color of an object; however, in my experience, this symptom is difficult to elicit, and most patients are not aware of changes in size of an object.

Methods of Examination

Subjective testing of the visual acuity is one of the most important means of diagnosing lesions of the macula (especially the incipient macular lesions) because, so frequently, a patient will complain of missing a letter but can see the adjacent letter by changing the fixation of gaze slightly eccentrically. When testing the visual acuity, it is important to record the visual acuity accurately with and without spectacles, and with a pinhole disc after the vision has been determined. So frequently the busy ophthalmologist does not make use of this simple optical aid which has proved to be of especial help. One can usually suspect a macular lesion from the patient's responses when recording the visual acuity with a multiple pinhole disc before the patient's eye. Lesions of the macula are most common among the elderly age group at which time other defects in the optical media are frequently present, such as incipient cataracts. At times, it is a problem to determine whether the visual defect is due, in the first instance, to the developing lens opacities or to an incipient macular degeneration. If one uses the pinhole disc, lesions of the macula may be suspected early in the examination by virtue of the fact that vision is almost invariably poorer with a pinhole disc than without it, while if the visual defect is primarily due to early lens changes, the visual acuity may be improved slightly in utilizing the pinhole disc.

However, this is not always the case. It is well known that with lesions affecting the papillomacular bundle, dense cortical opacities similarly result in the decrease of vision with the pinhole disc. Nevertheless it puts the ophthalmologist on his guard to look for some defect posteriorly rather than in the anterior segment of the eye.

The question of carrying out the ophthalmoscopic examination through the undilated pupil or through the dilated pupil is a matter of individual preference. I know that most experienced ophthalmologists can carry out a satisfactory ophthalmoscopic examination without dilating the pupils. However, it has been my practice and teaching to dilate the pupils in all cases, excepting in the known glaucoma patients.

A study of the visual fields will always reveal a central scotoma of a smaller or larger size, and this should be carried out as a matter of procedure in all patients where there is significant defect in vision. However, from a practical point of view, in the routine of a busy practice, this examination is usually time-consuming and there is a tendency to omit this part of the examination. It has been my practice to do central and peripheral fields on all patients in the examination chair using a small white-headed pin, rather than move the patient over to the tangent screen. I

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think that this white-headed pin is a most useful adjunct in the ophthalmologist's armamentarium, and a scotoma can be quickly determined with reasonable accuracy sufficient to be of value in establishing a diagnosis. Of course, for record purposes, it is necessary to repeat the test on the tangent screen when this is required, especially if the findings of the visual field defect are being studied serially at intervals.

Recently slit-lamp microscopy has been advocated as an aid in the diagnosis of lesions of the retina. Goldmann[2] thinks that a diagnosis can seldom be correctly made in patients where the symptoms and objective findings are not pronounced without the aid of the slit-lamp microscopy. Similar, opinions have been expressed by Sorsby;[10] however, I have found that this type of examination is somewhat difficult to do with facility. I do feel that fundus photography is of real assistance in the following of many cases, and helps to determine with accuracy whether the lesion is increasing or decreasing in size.

In certain selected cases, the patient may be referred to a center for study of the uptake of radio-active phosphorus, especially if a malignant tumour is suspected in the posterior pole of the eye. Numerous studies have appeared the past few years, and a suitable probe has been designed to use at the back of the eye. Thompson[11] at the University of Toronto has recently reported his results in sixteen tests with the posterior counting of probe. He feels that this test is useful in the diagnosis of suspicious macular lesions, but it does not take the place of careful study, clinical judgment, and experience.

Transillumination of lesions in the region of the macula is difficult and is frequently not a reliable diagnostic aid for intraocular malignant lesions.

Lesions Affecting the Macula

It is, of course, impossible to discuss all the lesions affecting the macular area in this short space. In an effort to mention the more important ones, we shall divide these into two groups: (1) elevated, and (2) non-elevated lesions of the macular area.

Elevated Lesions of the Macular Area

Probably the most common elevated lesions of the macular area in the old age group is senile disciform degeneration. The disease usually occurs in the sixth decade of life and is characterized by a sub-retinal hemorrhage in the central area. A macular hemorrhage raises the retina into a mound varying from half to several times the size of the optic disc. In the advanced cases, there is a large mass in the macular area which projects for several dioptres, usually grey or yellowish-white in color, and hemorrhages are frequently present in the retina around the lesion. It is frequently present in the fellow eye in the early or late stage. This condition must be differentiated from malignant melanoma of the choroid which is sometimes difficult to do. Reese and Jones[8] studied 214 patients suspected of having a malignant melanoma of the choroid and of this group, twenty-one (slightly less than 10 per cent) of the patients did not have a malignant melanoma as proved by the subsequent course of the disease. Seven patients showed sufficient pathologic changes in the macular area of the fellow eye to give confirmatory evidence. This indicates the importance of examining the fellow eye. In a group of twenty-three eyes studied at the Registry of Ophthalmic Pathology of the Armed Forces Institute of Pathology in Washington, Frayer[1] found thirteen of the eyes had been enucleated because of the mistaken diagnosis of malignant melanoma. Frayer feels that removal of an eye for suspected malignant melanoma, which later proves to be a disciform degeneration of the macula, is occasionally unavoidable with our present diagnostic techniques.

In younger persons, juvenile disciform degeneration of the macula (which is similar in appearance to senile disciform degeneration) may occasionally simulate a tumor. Adler† thinks that many of these patients, in reality, are suffering from inflammatory choroiditis.

Malignant Melanomata.—In my experience, malignant melanoma in the region of the macula is rare. Most elevated lesions in the region of the macula are either from inflammation or as a result of disciform degeneration, but are frequently diagnosed as a possible malignant melanoma. In the younger adults, the elevated inflammatory lesions affecting the macula are certainly not uncommon, and in the older age group, a markedly elevated mass in the region of the macula from disciform degeneration is not uncommon. There are no lipoid deposits at the margins of the lesion in malignant melanomata.

It is wise to delay removing eyes which are diag-

†Adler, F.: See Frayer[1]—personal communication.

nosed clinically as a malignant melanoma in the macular area. I feel that these malignant tumors are more frequently situated near the macular area and not over the macular area. In any case, one can afford to wait a few weeks and note the characteristics as to change in size and color after subsequent careful examination. In the cases of malignant melanomata in the posterior segment of the eye, a clinical finding which is not often stressed is the presence of a serous detachment of the retina without a tear, well inferiorly. This can only be observed with maximum dilatation of the pupil and careful search in the periphery of the retina.

Hypersensitivity States Affecting the Macula

Central serous retinopathy.—The occurrence of episodes of edema in the macular region with consequent relatively transient disturbance of the vision has been recorded by numerous authors under different titles and recently the whole subject has been reviewed by Wagener.[12] Harrington and Nicholls[7] are of the opinion that anxiety is a common factor in this condition while Hollenhurst[3] thinks the etiology and pathogenesis is allergic.

Inflammations affecting the choroid and the retina in the region of the macula are frequently the result of hypersensitivity to an offending agent elsewhere in the body. Usually these inflammatory conditions occur among those in the younger adult age group and a careful medical examination is required in order to determine the cause. For many years, tuberculosis has been considered the most important cause of the inflammation, but recently toxoplasmosis and histoplasmosis have been found to be causative agents. Of course there are many inflammations in this region for which no cause can be determined.

Macular Edema After Cataract Extraction.—An interesting, but relatively rare, complication following cataract surgery is the development of macular edema. Numerous reports have appeared in the literature in the past few years, especially those of Nicholls[7] and Welch and Cooper.[13] I recorded three such cases in discussing Nicholls' paper at the Canadian Ophthalmological Society in 1953.[7] All three patients had had intracapsular extractions and the postoperative course was normal. In all, the visual acuity was correctible to 20/30 or possibly 20/40 at the first examination after removal of the sutures, but three or four weeks later the vision had deteriorated to 20/80 or poorer. In all, a central scotoma was demonstrable but no obvious edema was observed with the ophthalmoscope, although I presume there must have been some slight swelling in the region of the macula. No treatment was employed and in three or four months' time the visual acuity improved spontaneously so that all patients had 20/20, approximately.

Metastatic Tumor.—The occurrence of a metastatic tumor in the region of the macula is not common. However, the characteristics of the tumor are such that it usually can be diagnosed without difficulty. It is usually round and the elevation is quite marked, having the appearance of the surface of an orange. The retina surrounding the tumor is normal and the peripheral visual field is full.

Hemangioma of the Choroid.—This is a rare condition which is frequently situated near the disc, and its greyish-blue color makes one suspect a malignant melanoma. I have mistakenly removed one such eye.

Non-Elevated Lesions of Macular Area

Senile Degeneration of Macula.—This is a common cause of failure of central vision in older people and is characterized by the appearance of degenerative changes, usually punctate in nature, occurring bilaterally and limited to the region of the macula. It is due to sclerosis and obliteration of the smaller capillaries in the choroid in the central area. It is frequently difficult to see a lesion, ophthalmoscopically, affecting the macula in these patients, although the vision is reduced and a central scotoma may be elicited. In amblyopia exanopsia the scotoma is always relative. The condition usually starts in one eye, but almost invariably the other eye becomes involved months or years later. Oftentimes, no hemorrhages are seen but just as frequently, small intra-retinal hemorrhages are observed.

Myopic Changes.—In myopia, the atrophic process of stretching results in choroidal hemorrhages, especially near the macula when, of course, they result in immediate loss of central vision. Often the degenerative process is in the region of the macula and not accompanied by hemorrhages. However, when hemorrhages do occur, they are

characteristic of myopia in that they have a globular appearance.

Angioid Streaks.—The fundus picture in angioid streaks is striking when it is first observed. There are many hemorrhages at the macula and severe loss of vision occurs.

Diseases Affecting Blood Vessels

Macular Changes After Central Retinal Vein Occlusion.—Wise[14] has written several important articles on the late opththalmoscopic findings after occlusion of the central or branch retinal veins. He points out that the lesions at the macula simulate those of senile macular degeneration. However, the presence of newly-formed veins at the optic disc should suggest the appearance of a previous central retinal vein occlusion. Klein[4] has pointed out that the destruction of retinal tissue results in proliferation of neurologia and an ill-defined yellowish flat patch in the region of the macula. Occlusion of the central retinal artery, of course, results in the sudden complete or almost complete loss of vision and the classical cherry-red spot is observed at the macula with the surrounding edema. Hemorrhages and exudates will occur in hypertension, diabetes, nephritis and blood dyscrasias.

Circinate Retinitis.—Circinate degeneration in the region of the macula occurs in older people and is characterized by the formation of a large number of bright white spots in the deeper retinal layers around the macula. It runs a chronic course and invariably results in serious defect in vision. Quite frequently the picture is complicated by small or very large hemorrhages either over the macula or more peripheral to the white spots.

Traumatic Lesions Affecting the Macula.—Macular holes after contusions to the eye are not uncommon but usually a blow of some considerable severity is required on the anterior part of the eye. Likewise, tears in the choroid will frequently affect the macula. A large series of healthy young men suffering from eclipse burn of the retina were reported by McCulloch.[6] These patients had a minor defect in vision of approximately 20/40 or 20/50, and a small but definite hole in the retina at the macula could be found on ophthalmoscopic examination. Most of the patients reported by McCulloch were affected by this condition in the 1935 eclipse.

Colloid Deposits.—Massive colloid deposits in the retina, posteriorly, oftentimes do not affect the macula, in which case there are no visual symptoms. However, in many instances the central vision does fall due possibly to degeneration and sclerotic changes in the retina on the central area of the choroid underneath.

Cystic Degeneration of the Macula.—Non-traumatic holes at the macula are not uncommon and often they are difficult to see ophthalmoscopically. When a hole is found, there is a dark red spot at the fovea, the appearance of which suggests that the retina has been struck with a "punch."

Treatment

The only recent advance in the treatment of macular lesions was that reported by Rome[9] in 1957, who pointed out that one of the "major factors in the development of atherscleros is the study of the blood lipo-proteins." He pointed out that heparin is anti-atherogenic. His results indicated that rapidly developing disciform macular degeneration showed the best results with treatment of 100 mg. heparin intravenously twice a week for ten or twenty injections. Improvement was reported in the patients who had exhibited senile macular degeneration. My experience of this treatment is *nil* at the present time.

Some ophthalmologists combine this form of therapy with the use of potassium iodide combined with niacinamide hydroiodide (Iodo-Niacin).

Steroid therapy has been used and is, of course, recommended in the treatment of lesions of the macula which are considered due to manifestation of the hypersensitivity state, for example, central serous retinopathy, non-specific chorioretinitis, et cetera. However, in lesions of the macular caused by the toxoplasma, pyrimethamine (Daraprim) is used over extended periods.

In lesions of the macula due to the histoplasma, a new anti-fungal antibiotic, Amphotericin B (Fungizone, Squibb), is available and should be given for a period of forty-eight weeks. Frequently, steroids are combined in the treatment of histoplasma chorioretinitis. The therapy should be interrupted if there are manifestations of toxicity, particularly elevation of the non-protein nitrogen values.

After cataract extraction, Nicholls[7] has recommended the use of nicotinic acid, but on my own

patients no treatment was used and vision returned spontaneously as previously noted.

The low vision optical aids have recently assumed importance. Macdonald,[5] at the University of Toronto, reported his results before the Canadian Ophthalmological Society in June, 1958, using a variety of magnifying lenses. Many patients showed improvement of vision especially in the lesions of the macula, depending on the extension of the involvement.

One must not neglect the use of occupational therapy in patients with defective vision. Patients with lesions of the macula require reassurance that they will not be blind and should always be able to get around fairly well by themselves. Occupational therapy plays an important role in the management of their daily lives and should not be neglected.

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FUNCTIONAL DISORDERS OF THE DIGESTIVE TRACT

(Continued from Page 2001)

should prove of interest. Perhaps the conflict pattern may have some uniformity of design in these individuals.

Palliation may be tried along the lines of ulcer therapy—bland diet, antacids, and antispasmodics. These measures often prove helpful, at least temporarily, in interrupting the cycle of recurrent pyrosis.

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Bromism, A Menace

Five Illustrative Case Histories

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BROMIDES were first discovered by Balard in 1826[15] and during the early twentieth century were used extensively both for epilepsy control and as a sedative. Bromide compounds were eclipsed, however, as anti-convulsants, when the barbiturates came into general use and within the past decade have largely been replaced in the physician's armamentarium by the increasing horde of "tranquilizers." In the last few years, the scientific literature has not been replete with discussions of this subject. In two recent editions of comprehensive textbooks of medicine, one comprising 1,553 pages[8] and the other 1,687 pages,[2] exclusive of the indices, information on bromide intoxication was limited to approximately one-half page in each text. The treatment of bromism was limited to less than one-half page out of 607 pages comprising a 1956 text on current therapy.[4] The library of the American Medical Association, when asked for literature during the past three years on bromism or bromide intoxication, responded with three articles from American journals, one in the British literature, one abstract, and one response in the *Journal of the American Medical Association* in the question and answer column.[1]

However, among the general public, bromides have not been eliminated by any means. Witness the extensive use of a granular effervescent bromide concoction available in a dispenser for the payment of a small fee, at the soft drink and lunch counters of many large "chain" drug stores. Another proprietary liquid is used "for nervous disorders." A third has been used for nearly a century for "disorders of the female sex," although its concomitant percentage of alcohol has been much reduced from its original 18 per cent. A fourth is dispensed over the counter to produce "restful sleep without the use of narcotics or barbiturates."

Mixtures of bromide salts in a vehicle are available without a physician's prescription at most drug stores in several states, such as Michigan. One can speculate as to why the laity is using bromide self-medication so extensively, especially, as in one of the following cases, where the patient took effervescent granules by the handful and washed them down with aromatic spirits of ammonia! Obviously, during this era of nervous tension and uncertainty, a person can take the drug frequently. It is available at many soda fountains and drug stores and it is cheap compared to the cost of much higher priced tranquilizers, to which the doctor's prescribing fee must be added.

The problem of bromide intoxication is being met adequately in most mental and "state" hospitals which have a large percentage of psychiatric cases. For example, Scott and Brown[15] report that at Harrisburg State Hospital in five years, among 1,339 first admissions, an average of 3.1 per cent were considered toxic from bromides. The Mayo Clinic reported 158 cases from 1934 to 1943.[15] But at a centrally located private Detroit hospital, which strictly limits psychiatric case admissions, from 1952 through 1956, there were 52,521 adult admissions, excluding obstetric patients and newborn infants.[14] Three cases were listed as bromide intoxication (bromism), and out of 87,267 blood chemistry studies in this same period, thirty-four blood serum bromide levels were ascertained.[13]

Another private hospital in Northwest Detroit, with a patient clientele in a better economic status, performed 143,736 laboratory analyses from 1952 through 1956, but only forty-five blood bromide estimations were made in that period,[7] and in a large general county hospital outside of Detroit for the past four years only forty-seven blood bromide tests were done out of 205,896 chemical analyses.[4]

From these statistics, it would appear that in some private general hospitals with limited psychiatric admissions, the staffs are not generally alerted to the possibility of bromism among their patients.

The long-continued use or abuse of bromide compounds produces ill-defined neurological, psychological and physical changes, which are aggra-

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vated by a sudden increase in intake. For example, Holland in 1905 described a nineteen-year-old woman with epilepsy, who developed weakness, tremulousness, wakefulness, headache, vertigo and loss of memory when she increased her potassium bromide dosage without her physician's knowledge. She then developed fetid breath, coryza, salivation, delirium, and a fatal pneumonia.[9] Apparently, at that time chloride replacement therapy was not employed.

Although very few deaths from bromide intoxication are reported, if the diagnosis is missed, encephalitis, cerebral neoplasm, cardiac failure (especially if an associated acetanilid cyanosis is present) or hepatic coma may be cited as the terminal illness.

Alcoholics may easily switch to bromide habituation to relieve their tremors, excitation, or headaches. This drug is contraindicated in electroshock cases and also in dormant tubercular lesions where it may act like iodides to activate the process.[5]

Some salient points in the following illustrative cases are herewith brought to the reader's notice. Four of the five patients were sterile. Only one of these showed any skin lesions, which corresponds to 20 per cent of all cases, according to Drill.[5] Four of the five patients were in critical condition, one being comatose for three days with meningeal irritation, which can occur solely from acute bromide intoxication.[5]

Although the elderly woman (Case 5) had been admitted to the hospital on three previous occasions, her bromide habituation was not discovered until the fourth admission, shortly before her final terminal illness. Ayerza's syndrome was thought solely responsible for the stupor and cyanosis in the first case.

Although only one of the patients had skin lesions, Chick and Lelian recently pointed out that when present, bromide acne may be confused with blastomycosis and that a patient with functional (or emotional) disturbances who takes bromide over a period of time may find its tranquilizing effect can lead to stimulation, whereupon the patient may voluntarily increase his dosage.[3]

Therapy

Obviously, as soon as the diagnosis is made, all bromides must be stopped, and chlorides should be administered rapidly, intravenously if the patient is seriously ill, and orally in large doses.

An associated cardiac decompensation is treated vigorously. The author believes glucose intravenously in concentrated solutions, with mercurial diuretics may be helpful, even if there is some renal impairment.

Since bromides enhance the action of narcotics, alcohol, barbiturates, and probably tranquilizers, these should be used with caution, if at all. Chloral hydrate can be used, even if the patient is very ill with cardiac failure.

Hussur and Holley[10] find bromide elimination is more rapid with a regime of six grams of ammonium chloride daily plus 2 cc. of Mercuhydrin (each cubic centimeter contains 39 mgm. of mercury and 48 mgm. of theophyllin) intramuscularly every second or third day.

Chlorpromazine parenterally and orally has been used to quiet restlessness, disorientation, and hallucinations.[12]

Muszynska[11] mentions salt and glucose tablets for a severe psychotic, diagnosed previously as myocarditis and pneumonitis because of his cyanosis. Apparently, each individual has a critical bromide tolerance. When used in excess of this level, or if acetamilid is used concomitantly, signs of intoxication will appear. Likewise, if salt intake is reduced and mercurial diuretics are prescribed, bromide toxicity will develop. Conversely, intravenous hypertonic glucose solutions, venesection in selected cases, and hydration may improve the patient, even though the blood serum bromide levels may actually increase or stay elevated for long periods, after clinical improvement.

Case 1.—H.S., a white man, aged sixty-four, was first hospitalized for a month in 1953, for dyspnea, cyanosis and severe headaches. On admission, he was gasping, stuporous, and his sclerae, lips, tongue, fingers, and toes showed a deep "magenta blue" cyanosis, with pitting edema of the feet and legs. The chest showed emphysema, and the accessory muscles of respiration in the neck were very active. The lungs were markedly congested, as was the liver, and the heart was bilaterally enlarged. The diagnosis was recorded as Ayerza's syndrome, in advanced cardiac failure.

Important laboratory findings included an electrocardiographic report of partial A-V block and anteroseptal infarction, a negative urinanalysis and Kahn test, two non-protein blood nitrogen readings of 39 and 37 mgm. per cent, a blood serum cholesterol of 135, bromsulphthalein of 11.6 per cent in forty-five minutes, a cephalin flocculation of 4 plus in forty-eight hours; and normal thymol turbidity, direct and indirect bilirubin tests, and normal leukocyte counts. On September 4 (day of admission), the hemoglobin was 19.1 gm., the next day 17 gm., and on September 26, 18.2 gm. On

admission, the erythrocyte count was 6,870,000, the next day 5,010,000, and on September 26, 5,300,000 cells.

Therapy.—The patient was placed in an oxygen tent for five days. He was given a low sodium diet, mercuhydrin, digoxin, chloral hydrate, and catharsis. Two 500 cc. venesections were done in the first forty-eight hours, three weeks later 500 cc. and a final venesection of 500 cc. twenty-six days after admission.

Course.—The patient became rational after two days; the edema disappeared by the seventh day, and the cyanosis was hardly visible upon discharge.

Second Admission.—The patient's condition was similiar to the previous admission. His hemoglobin estimation now was 16.4 grams, with the erythrocyte count 5,700,000. Six days later, the hemoglobin rose to 19 gm. and the erythrocytes to 6,150,000. The non-protein nitrogen was 42, a blood serum calcium 10, and a blood phosphorus 2.2. Two hematocrit readings were 65 and 62. A teleroentgenogram revealed left ventricular enlargement and generalized chronic passive congestion. The hematological consultant diagnosed secondary polycythemia with a poor prognosis.

Therapy.—In addition to the other previous treatments, a phlebotomy of 800 cc. was performed, and aminophylline, coramine and 20 per cent glucose were given intravenously. Nicotinic acid, and adrenocorticotropic jel were administered. On one occasion, he passed over 8,000 cc. of urine. He was discharged much improved after five weeks.

Third Admission.—The patient was admitted October 16, 1956, in a condition like that of the two previous hospitalizations. He had been a heavy smoker, used much coffee, admitted to imbibing alcohol "moderately," but denied using any drugs except digitalis. Physical and laboratory findings were similar. Two phlebotomies of 500 cc. each were performed. On the day of discharge, eleven days later, he confessed to having used a "few" Restettes nightly for years and a "handful" of aspirin tablets when his headaches occurred (See appendix). His blood bromide level that day was 54.6 mgm. per cent. This was the first clue to his diagnosis. He improved and was discharged twelve days later.

NOTE: On April 10, 1958, this patient was reported to be quite well but somewhat obese, and was said to have stopped using "Restette" capsules.

Case 2.—F.G., a white man, aged forty-seven, married, a plumber unemployed for one year, was hospitalized July 18, 1957, in a stuporous incoherent, semi-comatose condition.

His history (obtained four days later) revealed chronic right fronto-temporal headaches, aggravated by nervous tension, vertigo, frequent falling in the last two years, and weakness of both hands and legs.

For many years, indigestion "and heartburn" had been present. He had been married twenty-nine years and had no children. His wife was reported in good health. Fifteen years previously, he was informed that he was sterile.

The history included a childhood eye injury, meningitis at fifteen, an appendectomy, an umbilical herniorrhaphy and an urethral stricture twenty years previously.

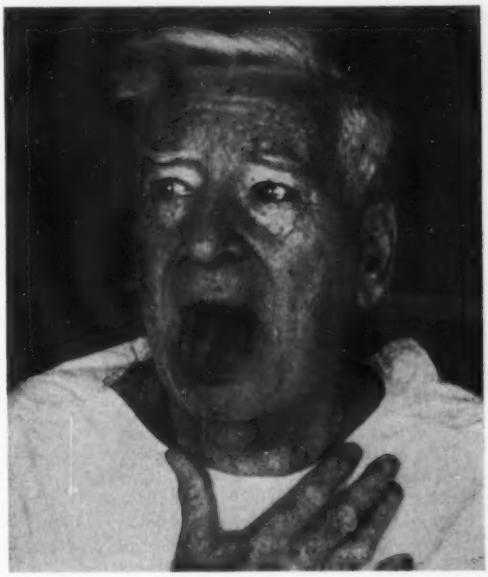

Fig. 1. Case 1. Mr. H. S., September 11, 1953. Note injected sclerae, cyanosis of tongue, lips and fingers.

Complete dental extraction was done two years ago for his headaches, without relief. Larger shoes were necessary recently because of swollen feet and ankles.

Physical examination showed obesity, a right old corneal scar, deeply injected sclerae, chronic extensive acne, and a bluish cyanosis of the ears, nose, fingers and toe nails.

Cardiac sounds were regular, rapid and distant. Both posterior basilar lung fields exhibited fine moist rales. The liver was enlarged three fingerbreadths below the right costal margin. Both lower legs and feet showed moderate pitting edema. The pupils were equally dilated. Kernig's sign was positive, but Babinski signs were absent. Knee jerks were bilaterally hyperactive. Both hand grips were very weak.

The admitting clinical impressions included cardiac failure with a cerebral neoplasm, meningitis, or a pituitary adenoma. Initial laboratory studies included 16.4 gm. hemoglobin, 5,700,000 erythrocytes, 6,450 leukocytes, blood Kahn negative, blood glucose 14.2 mgm. per cent, a blood non-protein nitrogen of 32, with 46 the next day, and normal intravenous pyelograms, negative x-ray findings of the skull and sella turcica, and a normal electrocardiogram except for digitalis effect.

He was placed in an oxygen tent, and given mercurial diuretics, intravenous glucose in distilled water, and a low sodium diet. Two days later, he was worse, noisy, incoherent, and restraints were applied. The third hos-

pital day, he developed a moaning stupor, with severe headache and marked neck rigidity. At this time, a relative informed me that he had been consuming the contents of a large sized bromoselzer bottle every two or three days, usually taking a handful of the granules and "washing them down" with aromatic spirits of ammonia. A blood serum bromide was 380 mgm. per cent on July 24, at which time chloral hydrate was administered, with intravenous normal saline and 2 grams of enteric coated sodium chloride t.i.d. Three days later, he was much improved. On July 30, the blood serum bromide level was 252. He now admitted to taking bromides for thirty years, usually bromoselzer but sometimes bromoquinine. Seventeen days after admission, he was discharged to his home.

On November 20, 1957, he was rehospitalized for fractures of the right costo-chondral junctions which occurred when a heavy lead pipe hit his chest. His hemoglobin was 13.0 gm. with 4,700,000 erythrocytes, and although he denied using bromides since his previous hospital discharge in August, the blood serum bromide was 62 mgm. per cent.

He was discharged much improved after one week, with the right chest immobilized.

Case 3.—L.S., an unemployed white man, aged fifty-one, was referred by Dr. A. Sack. He was hospitalized October 16, 1956 in acute cardiac decompensation. A large hemoptysis had occurred two days previously. His previous history revealed a "very nervous" mother. His father died of "heart trouble." Although his wife was in good health, she had never been pregnant. He had been a chronic alcoholic up to nine years ago, and was a very heavy cigarette smoker (over forty daily). A primary chancre was treated for two years in his early youth. Frequent wheezing coughs had become worse in the past two years. He admitted using bromoselzer steadily, but couldn't remember how long nor how much.

Examination showed a critically ill patient in Fowler's position with a constant racking cough, marked dyspnea, and a barely audible grunting speech. The ears, nose, lips, hands, and feet were cyanotic. The sclerae were very injected. The face, thighs, legs, and feet showed intense pitting edema. The distended abdomen showed moderate ascites, and precluded palpation of the liver or spleen. Temperature was 97.8°, pulse 110-140, blood pressure 170/85. Therapy included a low sodium diet, an oxygen tent, digitalization, morphine, codeine cough syrup, and phenobarbital.

The next day, he developed a feeble pulse, disorientation, and appeared to be moribund. Tracheal mucus was aspirated. A dosage of 50 cc. of 50 per cent glucose intravenously, mercuhydrine and coramine were administered. A bloodless phlebotomy was applied to the lower limbs. Laboratory tests showed a hemoglobin of 15 gm. with 4,900,000 erythrocytes. The third morning, there was improvement, although the blood glucose was 240. He received 1,500 cc. of 5 per cent glucose in distilled water plus 30 units of regular insulin.

On October 20 (two days later), the blood glucose was 96. On the tenth hospital day, a blood serum bromide was 270. He was given salt tablets and intravenous saline. On October 30, he was mentally clear, compensated and ambulatory. Blood serum bromide was 244. He was discharged home on October 21, 1956. The bromide level ten days later was 100, but on March 4, 1957, level was 4 mgm. per cent, with a negative Kahn, sedimentation rate and urinalysis, at the office.

NOTE: Although the true diagnosis of bromide intoxication was not made until ten days after admission and in spite of the low salt diet, intravenous fluids, diuretics, glucose, mercurials, digitalization, and bromide abstinence saved this patient.

Case 4.—Mr. F.E., an unemployed Italian, aged forty-eight, was hospitalized October 17, 1956 and discharged three weeks later.

His mother died of diabetic complications. His wife had never become pregnant. In his youth, a splinter had severely injured his left eye. His habits included one to four glasses of wine daily and a tablespoon of "Nervine" when he was excited or couldn't sleep, several times a week. Two days before admission, following a terrible right hemicrania, his left arm, hand, and leg became weak, and his speech became so slurred it was nearly unintelligible.

Examination showed a tall, stocky middle aged man. Temperature was 96.4°F., blood pressure 160/90, but the pulse rate was 48. The left cornea was opaque. His tongue protruded to the left, and the right temporal region of the face was very tender.

The heart was enlarged to the left. The liver was enlarged about three fingerbreadths below the costal margin. The legs showed varicosities, no edema and old stasis pigmentation.

Neurologically, he showed an unsteady shuffling gait and muscle weakness of the left forearm and leg. The patellar reflexes were bilaterally decreased. The Babinski reflex was positive on the left. An electroencephalogram showed a sub-cortical vascular disturbance.

There was some cyanosis of the lips, tongue, and fingers. Laboratory studies showed a bloody spinal fluid. He refused a second lumbar puncture. The hematology was normal, Kahn test negative, a non-protein nitrogen was 50, and blood glucose tests were initially 123, later 139, and two weeks later 85 mgm. per cent. Several urines showed negative glucose tests, varying amounts of albumen, and casts. Therapy included intravenous hypertonic glucose balanced with regular insulin, venesection of 540 cc. digoxin, and penicillin when his temperature rose to 101-104° F. for several days, then became subnormal. A blood serum bromide estimation, ordered on the twelfth day because of continuing cyanosis and mental confusion was 80 mgm. After the blood bromide estimation, intravenous triple chloride solutions were given and salt was added to the diet. He showed definite mental improvement but the hemiplegic sequellae remained. Diagnoses on discharge were cerebral vascular thrombosis or hemorrhage, left ventricular hypertrophy, nephrosclerosis, and bromide accumulation.

Case 5.—Mrs. A.H., a retired white woman, aged eighty-one, was hospitalized September 21, 1956, for eighteen days because of nausea, gaseous eructations, and

anorexia of several months' duration, insomnia and weight loss for one month. She worried constantly about sleeplessness, cancer, heart failure, and sudden death. Several home visits previously, however would show her sleeping soundly, frequently snoring up to 11 a.m. to noon, on the day of the visit. When awakened, her speech would be slurred and she would be confused.

Her husband had died twenty-four years previously, at which time she developed a progressively crippling generalized rheumatoid arthritis. She never became pregnant. All living relatives had died. A large impacted fibromyoma was removed in 1956, and the previous year, bilateral cataracts were enucleated.

Examination showed a frail, undernourished old white woman, with multiple crippling arthritic deformities of the shoulder, left elbow, partial ankyloses of the knees, ankles, left hip, and the "claw" hands of advanced arthritis. The sclerae were injected, the left eye was blind. There were no teeth. The breath was foul, and the coated tongue a magenta color. Cyanosis of the lips, fingers, and feet was present. A mid-epigastric tenderness was present, with some upper abdominal distention. Laboratory findings included a negative Kahn test, and urinalysis. Fasting free gastric hydrochloric acid was 10°. Hemoglobin and erythrocyte studies were normal. A gastro-intestinal x-ray series revealed a peri-esophageal hiatus hernia. Two days before admission, the blood bromide level was 206, obtained after her companion at home admitted giving her a "few bromoselzers" nightly for years, so that they could both sleep!

Five days after specific therapy (1.5 gm. of salt tablets daily plus intravenous normal saline), the bromide level dropped to 64, and the patient was returned home with gastric symptoms much improved. Two weeks after her hospital discharge, the bromide level was 54.

Course.—On February 9, 1957 (while I was out of the city), the patient was readmitted because of a stridor and a constant cough following a respiratory infection of three weeks' duration. She was brought in as an emergency case, with a tracheal occlusion requiring an immediate tracheotomy. In spite of oxygen, frequent aspirations, multiple antibiotics, aminophylline, intravenous feedings and sedation, the whole trachea became edematous, moist rales were heard throughout both lungs, and there was a low grade fever of 99 to 99.6°. Pneumonia developed, and she expired on the sixth hospital stay.

An autopsy revealed a granulomatous laryngitis above and below the tracheotomy tube, bilateral aspiration pneumonia, a previous fibrous pericarditis, coronary sclerosis and bone marrow emboli in the pulmonary vessels. The physicians in attendance did not consult her previous admission chart and were apparently unaware of her previous bromide syndrome.

No blood bromide levels were ordered during her terminal illness.

Summary and Conclusions

Five cases of chronic bromide intoxication have been presented to illustrate the menace of bromide addiction. Since the development of barbiturates, newer compounds for epilepsy control, and the "tranquilizers," physicians have relegated bromides to a background role, but proprietary bromide usage has become widespread.

Only three of several "over-the-counter" items indicate their bromide content by name. Patients often forget to tell their physicians, who often forget to ask them, about their bromide intake.

Many of the bromide preparations available contain acetanilid, the latter causing methhemoglobinemia and sulphemoglobinemia. The resulting cyanosis must be differentiated from that caused by cardiac failure, respiratory depression and pulmonary embarrassment.

In this era of low salt diets for hypertensive and cardiac cases, the constant use of bromides may cause serious accumulation of the drug.

Physicians prescribing hexamethonium bromide for hypertension should recognize the danger of a low salt diet when such patients use this substance for extended periods.[16]

Patients having arteriosclerosis, anemia, impaired renal function and organic heart disease, who are taking bromides, are more susceptible to bromide intoxication, even if their blood bromides are not very high.[16]

Alcoholics may switch to, or use concomitantly, large repeated doses of bromides especially for their post-alcoholic headaches and/or their excitation after an alcoholic "spree."

The public should be better informed about the danger of bromide habituation and proper labeling of proprietary remedies should be enforced.

A high index of suspicion and more frequent blood serum bromide determinations should uncover this factor as a hazard in acutely and chronically ill patients upon admission to the hospital.

Finally, when such cases are discharged, a persistent follow-up of each patient will reveal his lapse into bromide rehabituation when this occurs.

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Appendix

Commonly Dispensed Bromide Preparation U.S.P. Dosage—0.5 gm. (15 grains)

Name	*Bromide Content*	*Acetanilid*	*Form*
Bromoselzer	320 mgm. per dram	160 mgms. per dram	Effervescent Granules 1 oz. and 2½ oz. bottles
Bromidia	91 gr. to each oz.	none	Liquid pint & gallon
Neurosine	90.6 gr. in each oz.	none	Liquid 4 & 8 oz. bottles
Restettes	12 gr. in each dose	present amount unknown	capsules
Nervine	30 gr. each tablet 1200 mgms. each dram	none	tablet liquid 6 oz.
Bromoquinine	⅛ gr. quinine hydrobromide in each	none	5 gr. tablets

INCIDENCE OF VENEREAL DISEASE

Since the introduction of the antibiotics, the over-all death rate from syphilis has dropped from 12 persons per 100,000 population in 1943 to 2.2 in 1958. Nevertheless, an estimated million persons in this country still have the disease.

Although the incidence of venereal disease is still high, 30 infants in this country died from congenital syphilis last year, while 3,460 would have died if the 1930 rate had continued.

Despite sharp drops in the incidence of venereal disease since the development of antibiotics, an estimated 60,000 cases of syphilis and 1,000,000 of gonorrhea are still acquired each year. "Complete elimination of these diseases is at this point far from achieved."

The rate of first admissions to mental hospitals for paresis, a complication of syphilis, has dropped from 4.7 per 100,000 population to 0.5 since the antibiotics were introduced. In spite of such figures, the problems of venereal disease in the U. S. are far from solved, chiefly because of public apathy and ignorance.

—Health Information Foundation, Nov. 10, 1959.

The Dynamics of Geriatrics

By C. Howard Ross, M.D.
Ann Arbor, Michigan

THESE remarks have to do with the "powers residual," that may be in evidence, or may be resurrected within the elderly personality. I am aiming my darts of enquiry towards those of advanced years, who are still actively employed; also I am making room for the semi-retired, the rehabilitants and even the timid invalids.

It is my urgent intention to promote certain old folks from the hex of "sittin' an' a-starin' an' a-rockin'."

As we grow older, there must develop within us a habit of *healthful employment of leisure time,* with creative interests hovering in the intimate neighborhood. Those of us in geriatric practice certainly could look sharply about us when observing the living conditions and activity propensities of our older population. A mere fusty room, a chair, a dresser, four walls and a stuffy atmosphere, plus a listless approach to the shards of life—all deserve a gerontological *kick in the pants* from the attending medico.

In addition to writing a prescription for health, we can also turn the knob of existence ever so slightly in the direction of activity—just enough to make the tumblers of the combination open the safe that reveals the freshness of existence.

Let me take you back to a day's end, when the office hours had been utterly spent, and the medical juice had been wrung dry. I was making a deadly aim to eloign myself beyond the door of enticing escape, when a weeping, red-eyed old man confronted me. I turned on the lights, shifting my tongue to a prim set of words that would introduce the suggestion of dinner and family awaiting me. He bellowed right back at me, "What has a meal got to do with my problem? I'm the unhappiest old man in the world!" The ululations continued.

So, we sat down. I then gave him ample opportunity to relate his disaster, and he began, "You see, me—an old man—who married a young woman, and soon the house was full of kids, and I don't know for the life of me where they came from! Everything went fine until the rich young bachelor moved in next door."

"Was that bad?"

"Was that bad! In no time my wife and kids began to take their meals and some pretty fancy times over there. After a spell I had no wife, and pretty soon I had no kids. They all moved in with that young game-cock."

I was thinking of a word that would rhyme with "terrible," when he snatched the thought right away from me and said, "Yes, terrible." However, between weepings and moanings he began to take some degree of courage. "But there was one little bright spot in the whole miserable mess."

"And what was that?"

"She gave birth to an illegitimate baby." I started to exclaim, but he silenced me. "As soon as that child could crawl, he crawled over to see me. As soon as he could climb, he climbed upon my lap. As soon as he could pat, he patted me on the cheek. Why, doctor, the only happiness I get in this whole, wide, wicked world is from the little bastard next door!"

This is a peculiar bit of dynamics y-clept from the life of an old man, but it served as a ferment alleviating his disaster.

Since the child actually bore his name, we arranged a cozy situation, including a housekeeper, the baby, the old man and a different neighborhood. Mamma and her bachelor friend were only too happy to oblige. The tears and the threnodies subsided, and a spiritual rehabilitation was established.

It has been my happy experience to influence the lives of many oldsters who are not swamped by the bachelor next door, but who have experienced their bits of dynamics via other means.

Let me outline to you some of these manipulative techniques, which apply in making the older years of life the richer years. All that I have to

Presented before The Golden Age Group, Conference on Aging, Ann Arbor, Michigan, June 20, 1957.
Also presented before The Northern Tri-State Medical Association, Notre Dame University, May 8, 1958.

say may prickle only one inspiration at a time. In no way do I become enthusiastic except where I have tried out the recommendation myself.

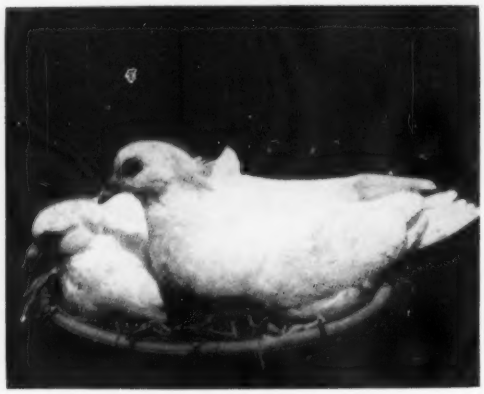

Fig. 1. Geriatric husbandry. King squabs ready for the pot.—From U. S. Department of Agriculture Bulletin 684 (Farmers').

Husbandry

Dr. E. L. Bortz speaks of "human husbandry." I would like to introduce husbandry as a means of stimulating an interest in the older years—a husbandry of lower forms of life, dependent upon the benevolence and the kindly care of some better-than-symbiotic old man or old woman attendant.

Here is where the Shetland ponies, the fancy or plain poultry, the parakeets and the king pigeons come strutting forward for intimate review and culture of the generations. One must select an ancient man or an older couple or a neighborhood group of oldsters, who might enjoy the challenge of animal husbandry on a small scale. In this paper I will dodge the quadrupeds. I would like to emphasize bird culture first—and will take off from there.

In the beginning we need not quote or require previous experience. However, a location in a village, on the farm—or at the edge of town—will fulfill the realms of recommendation.

Let us select only stalwart birds from a tested aviary. You may lean towards the chickens and the parakeets, and I send joy with you. For me—I prefer the king pigeons. Psittacosis (ornithosis) must be ruled out before we dream of beginning with pigeon culture, or we will become an instrumental agent of a disease that will make a pass from pet to fancier. I always vote against "gift birds" for this reason. What we hope for is *recreation* in geriatrics, *not contamination.*

The next move is to maintain a disease-proof aviary or "columbary" by creating a rain-proof roof to the flying cage, preferably of metal. The plan forbids infection from wild bird droppings. The cage may be cylindrical in shape, possessing a central post or tree trunk. The wire must not only be mouse-proof and rat-proof, but shrew-proof. These little devils can kill birds dozens of times their weight, as any wise old man can tell you.

Therefore, the mesh spaces are best not to exceed ¼ inch in size, if we intend to assign an intelligent approach to an elderly hobby. The floor should be of well-poured concrete, not less than 6 inches in depth, to prevent inroads from gnawing and marauding rodents. The wire mesh, creating boundaries of the cage, must be buried within the concrete. Drainage should be considered to keep the landing field dry. A fair-sized cage for a beginner may be 8 feet in diameter and 10 to 12 feet in height. A short stepladder will aid in raiding the pigeon nests of plump squabs.

The construction mentioned may be designed and "blue-printed" beforehand on meat-wrapping paper and then executed wisely by the "not wanted," "the handicapped" and the "shut-ins."

As to nests—they may be created by purchasing a number of empty nail kegs. A top gable piece is nailed into place, after a front porch is fashioned by attaching a keg stave to the bottom of each individual nest-house, with several inches of projection allowed for landing and strutting purposes.

These keg-nests may be spiked to the central cage-stud or tree trunk, in groups of three, one for papa, one for mamma and the eggs and one for the growing babies of the last hatch.

By making matters "well-adjusted" for one's creatures, there develops a kindred kindling of warmth within the hovering human being.

Nesting material is not placed by the elderly man himself, as in the case of chickens, but is fussed over and selected by the birds themselves. A box of small twigs and straws is arranged for the flock to choose from. There must always be an ample supply available. Otherwise, thieves develop and nest-robbing becomes an observed "public offense" and a cause for neighborhood rowdyism. Excelsior should be avoided. The birds may hang themselves. The prize material consists of petioles from the woodbine (Virginia creeper).

If one in advanced age has lost some of his adult roles, he may partially regain them in this new and inviting endeavor of aviary chaperonage.

The most majestic birds are the king pigeons and the giant white runts. I have greatly enjoyed crossing the white and silver kings. By life selections and roasting-pot eliminations, (and to the ex-post-facto horror of Charles Darwin and Gregory Mendel) I have *created* a new breed of bronze kings, with a splashing white necktie, extending from ear to ear. So, the new race of birds emerges. In somewhat like manner, the old man attendant can dismiss some of his living in the past. In a small way he becomes a part of a new wee community, exposing his free time to include creative endeavors.

After mating, the mother bird settles down shortly, following a "heat parade" on the part of the male, and produces a pair of eggs. Incubation is shared by both sexes. The soigne' male assignment lasts from 10 A.M. to 3 P.M., and the female is tuned to the remaining nineteen hours. In seventeen and one-half days, two downy nestlings are hatched. Feeding is by regurgitation. Both parents indulge. In seven weeks the 14-ounce king squabs are of full size and ready for killing, dressing and the pot. King squabs are delicious, stuffed with peppered, chopped toast and tiny sausages, and oven-baked and basted to a turn. In the human neighborhood social exchanges become pregnant with anticipation, and normal companionships among the elderly are re-established.

If one wishes to build up his own flock, he must become patient with the squabs for six months' time to allow for sexual maturity. The squabs find adulthood and the master indulges in some degree of self-recognition.

Various food and mineral supply boxes are provided, containing in series the following: (1) crushed stale bread; (2) a mixture of grains, containing especially the Canadian pea, rolled oats, wheat and cracked corn; (3) crushed charcoal; (4) oyster shell flakes and granite grits; (5) Iodized salt; (6) chopped greens, including grass tops, alfalfa, tomato leaves and freshly sprouted oats; (7) two large pans of water, changed daily, intended for the inner bird and splashing purposes.

Health and protection for the flock have so captivated our former listless oldster that his present glowing cheeks reveal an inner awakening and a spiritual satisfaction.

Bird personalities, to the geriatric observer, are fascinating indeed. There is the nervous housekeeper and her nervous offspring; also—the slovenly old girl and her do-less descendants. Further, it does not take long to recognize the gonfalonier or flock boss.

Pairs are known to mate for life. However, I have seen a saddened widower almost give up the ghost, and then manage barely to recover in twenty-four hours at the sight of a comely widow or eye-giving debutante. A "rich bachelor next door," to a hen-pecked married chap, may create grounds for an aviary divorce. There are many occasions of bird performance, including struttings, noddings of "good mornings," billings, cooings and ceremonials of "giving the eye."

The leisurely observer may take descriptive pictures and even write a paper on the subjects.

Several neighborhood old folks have joined in an aviary ownership, sharing responsibilities of cage-building, nest-cleaning and penning up the new honeymoon couples of selective breeding. Work is not just something for the other fellow's soul. Here is a *golden age working group*, created before our very eyes.

A good producing pair of birds may continue at the task of their husbandry for ten or more years, deferring their own geriatric levels. Some noble pigeons have lived for a quarter of a century.

Altogether, a neighborhood group of oldsters may become greatly attached to their teeming flock. Some elderly people have confessed to me that they consider the exposure to the various bird personalities to be a very personal matter. There is daily activity in the open, and there are intensive plans and uproarious feasts to gladden the golden years.

These generous elderly people readily gather in the strays and assume responsibility for *geriatric castaways*, seeking a *new niche in an older life*. Husbandry recognizes neither politics nor race nor creed but yields a meaning to leisure.

Hanging Herb Gardens

One of the most stimulating additions to the geriatric sick room or sun parlor or outdoor nook, is the hanging herb garden. For a large-sized edition, one may employ a bushel burlap sack. However, the product is a back-breaking Brobdingnagian to move. I have soothed down my ambition in recent years in employing a half-bushel plastic sack as the conveyor of choice. One may purchase such bags at any large produce store or

frozen food locker. One-half-inch openings are made with knife-point about every 3 inches up and down the plastic container in a sort of spiral pattern.

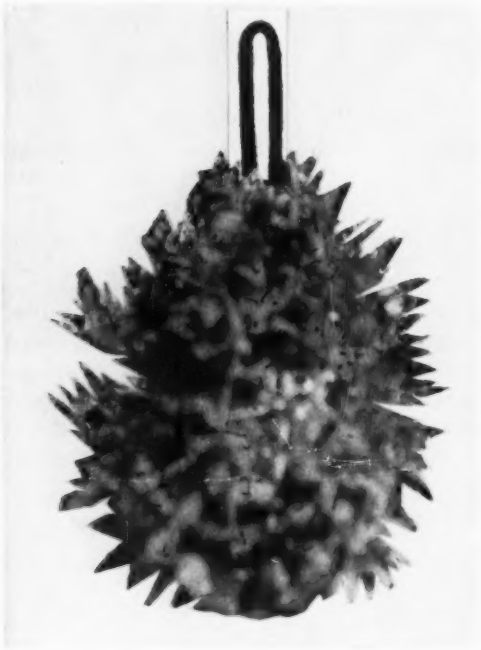

Fig. 2. Hanging herb garden for the geriatric sick-room.

For the sustaining earth that will maintain life, I employ a supply of half-digested leaves sneaked from my mulch heap. This handy pile has been created the previous fall for general garden purposes. For your information, here is the gross formula:

100 bushels of leaves
200 pounds powdered cow manure, which possesses no weed seeds
200 pounds commercial fertilizer
10 bushels black earth
10 pounds "activo" (nitrogen-fixing bacteria)

Such astounding figures need not slay you, and before any scurrilous adjectives are hurled in my direction, let me assure you hastily that fractions suitable for the smaller yard or individual activity may be selected. Incidentally, this mixture makes a wonderful garden refresher.

About one inch of the moistened mulch is placed into the bottom of the bag. Then various herbs are pulled through the perforations, root first, with some degree of stimulative imagination. Each circle of root systems is "nailed home" with handfuls of moist mulch. Around the circles we go, and up the sack we climb, painstakingly drawing in the roots, securing them into position and allowing the green herbs to peep through the openings and hang on the outside of the bag. Finally, our herb bag is almost full of mulch and at least three dozen ambitious herbs are popping through the "eyes" of the mother sack and are eager to grow, give service and motivation to life.

The most generous plants of herb service are: chives, garlic, thyme, sweet marjoram, sweet camomile, spearmint, red-headed lettuce, parsley, lavender and sage.

I have made hanging herb gardens of spearmint, alone, just as a notionate specialty. If the spearmint is too boisterous and possesses too long a mis-fit stem, don't let it get you down. Merely drag, through the opening, the extra stalk of plant, until the desired length is reached on the outside and an incongruous effect is avoided. Spearmint is a moronic and obedient herb and will "mind" a known master readily, being more peasant than *bas bleu,* and responding to the slightest care.

A strong twine loop is tied about the top of the sack, being also reinforced from a bottom plastic safety pad, and hung into position. Watering is done from an "ant-eater snout can," flushing into one of the top perforations.

Old folks who are shut-ins, may have a pair of scissors hanging handily by the mobcap, and snip off their garnishings for any inviting meal, which thus becomes duly enriched. However, the more vigorous may also indulge.

I once prepared a large hanging herb garden for four elderly but active families. Their four properties joined at one point, and that is where we planted the stud that held the herb garden. But these people immediately dramatized the potentialities and ambitions of eager participants and followed suit with many smaller hanging herb gardens which they created for some of their invalid neighbors. The thing is catching!

Some garden clubs, after hearing me spout off, have run away with the idea and have declared it to be their "geriatric project of the year." Many oldsters, no longer men of straw, then imitated the folks at the four corners, assisted invalids in equivalent tasks and became herb garden missionaries in a new apotheosis of dedication.

Mum Culture

Mum culture is strongly recommended for all ages but has its special application for the elderly. Even the arthritic and the yard-confined invalid may vie with the vigorous in this stimulating bit of exercise.

Let us begin at the beginning. About the third week of May in the Temperate Zone the young growths of hardy mums reach 6 to 10 inches in height. Among the many varieties of such mums, my elderly patients and I go a-snooping for sturdy stems. The 3-inch tops of these canes are plucked off and dipped butt-down into a thick soup of root hormone and water. If one wishes to modify certain characteristics of flower pattern, he may add colchicine to the "dip." So far, there is nothing

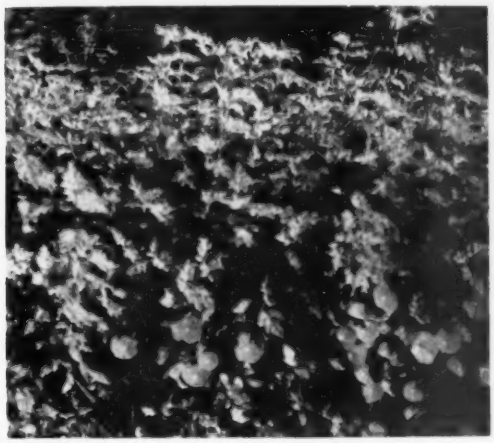

Fig. 3. Geriatric chrysanthemum culture. New cuttings taking root.

recited that will represent efforts beyond the abilities of the invalid. However, the stubs that remain will grow into "bushy" mums and may be thinned and re-planted.

But the new cuttings for the infant nursery are routed to a shady spot, or into flats, placed in pencil holes, 1½ inches deep, row upon row, only a few inches apart. They are watered every other day for about a month, or until there are created definite root systems of sustaining quality. Now, the transplants are lifted out of their nursery and given a new sunny home, placed in holes at least 6 inches apart. Once more there must be waterings three times a week, against the wilting rays of the sun. Wheel-chair invalids can do the watering, while those whose knees will bend, can still perform the nursery work.

These little ambitious mum plants will bloom the first year, and over half of them will survive the first winter and become cold-seasoned stock.

In a geriatric home there are many swappings

Fig. 4. Bird watcher's paradise for geriatric enthusiasts.

of prize transplants, and beautiful specimens may be potted in the fall and brought into the sick rooms. Joy is created for the giver, and much rich reward is observed in the countenances of the recipients.

This is more than "Podunk at play," I can assure you.

Such a project is recommended both for the vigorous and the timid samplings of geriatric humanity. Names of the home-bound may thus be added to the receiving lists of Golden Age Clubs.

Bird Watcher's Paradise

For the elderly bird enthusiasts, including myself, I have planted in the woods double row cuttings from many vines and shrubs, namely: the nine-bark, spiraea, honeysuckle, lilac, rosa multiflora, red-branched dogwood and wisteria. There should be at least 6 feet of space between the rows. As the young shrubs shoot up over head height, I bend the opposing canes and intertwine the tops, securing them with green garden tape, reinforced with wire center. A continuous wood bower is thus created.

The next year new growths shoot upward from the intertwined loops. These growth centers provide perfect nesting sites for such fluttery friends as robins, catbirds and turtle doves. The berries on the honeysuckle and rosa multiflora hips become good provender, extending even to chilly weather. An elderly observer can lie on his back, and with a pair of binoculars in his hand, may indeed enter the bird watcher's paradise. Then follows identification of species, with notes to be made on family habits, for here is one place where the household still exists.

The question is raised as to the heroic demands placed upon the elderly for enjoying such an escapade. Of course, the wheel chair invalid is *not* excluded. Also, anyone who can walk or creep may indulge. I have had the exquisite experience of observing enthusiasms for the bird watcher's path entirely outdistance the complaints of the complainers. Timid souls have turned into "eager beavers."

These paths, if properly constructed and lined with wild flowers, will permit one to walk through with ample head room, and without being strangled by the lush growth overhead.

Such an experience adds activity and hope to the elder years. Work progress and species identification may be transported to the sick room with glowing account. There is pride in the program from both ends.

African Violet Jungle

Being an unorthodox person of *esprit fort,* I have "taken it out" on the African violets, in creating jungles of these rather apologetic plants, which finally wend their way towards the elderly bedside. For a container, I select a large earthenware crock, about 8 to 10 inches in diameter, which is filled to within an inch of the top with a well-rotted leaf mulch. The very top fill consists of sand. Both fills are moistened down. A sharpened lead pencil furnishes an excellent planting spud. About twenty-four holes are made in spiral fashion, beginning in the center and ending up at the periphery.

Selected leaf cuttings are made from several African violet species. I employ vigorous leaves of size that are not quite through their advancing growth cycle. The stems should be a good 2 inches long. If there is any question of disease I wash all leaves quickly in a "gladiolus dip," then touch the stem ends into the "mud" of root hormone and water. Each stem end is lowered by a bed invalid into a pencil hole, taking care not to let the leaf quite touch the sand level. The eraser end of the pencil makes an excellent tamping instrument, and soon all the leaves are secure in their new bed.

A large pan of water under the crock should be filled twice a week.

Formerly, I placed a large glass bowl over the entire set-up, serving as a miniature greenhouse, but I fear this practice encourages the growth of molds. Hence it has been discarded.

The pot is placed in the window of a geriatric sickroom or in the sunparlor of a geriatric home. Finally, tiny leaves, the size of a baby mouse's ear, begin to develop. These little plants assert themselves, and finally a "violet jungle" appears. The mother leaves will continue to grow with their children.

After the invalid has enjoyed her jungle, one may separate the plants into individual pots, and the cycle begins all over again. However, from some devilish impulse, I have let an occasional violet jungle fight it out. There results a profusion of leaf and blossoms that is a panachure to behold, even though all rules are broken by such an addlepated procedure.

An oldster feels much vigor of life at his command.

If a geriatric Scotsman is hovering near, he may cut off the mother leaf from a young hopeful plant and compel it to perform its hard task all over again—the second time in a new future jungle.

Some of my elderly patients in a geriatric home have dozens of African violet plants on a series of glass shelves in a picture window. There is much fussing and fuming over these green children, with face-to-face relationships. Even wheelchair invalids with gnarled hands see no limit to their activities in such related endeavors. *Physical problems become diluted by creative endeavors—and sad personalities no longer clutter up the landscape.*

Dwarf Tree Culture

For many years I have admired the Japanese culture of dwarf trees and have attempted to simulate this technique for the geriatric sickroom. Since time is of the essence, I must of necessity find a quickie substitute for the pleasure of some

elderly cancer patient, who may possess only a limited life yet remaining.

I have hit upon the Babylonian weeping willow as my particular victim. In winter, and as late as March, I select small but stout end branches with a good weeping pattern, that do not greatly exceed 2½ feet in height, after careful pruning. The butt end is placed in a water-filled milk bottle containing a dash of root hormone. In a few weeks, myriads of white roots appear. Also, the tender chartreuse leaves begin to unfold along the more vigorous stem ends.

Soon comes potting time, and one must be careful not to break off the delicate rootlets. This is accomplished by letting the butt end be gently surrounded by moist leaf mold, supporting the miniature tree in a vertical position. As the earth and leaf mold settle, the roots find their positions without trauma.

This little tree has a personality to share and soon is demurely working away at life, *with enough backbone to stand erect and enough humility to weep at the top.* It is now ready for a "social spread" in the bedroom or sunparlor or activities room of a geriatric home—not to exclude a private residence. Generally, I wrap the pot in aluminum foil to doll up the situation at presentation, just for the glitter effect.

One blind old man fondled his tree and wept silently. It was the only "relative" that he possessed.

After the first good frost, I have also imitated the "March pattern," stripping the lighter twigs from new cuttings off the mother tree. In the warmth of the rumpus room, new buds appear, and one can produce a fine dwarf willow for the Christmas holidays.

Some of my elderly patients want their trees to grow up. If there is a spot in the yard of about 500 square feet to spare—and not too near a drain pipe—the deed can be consummated. Just plant the little fellow in the center of such an area, and in few years' time a beautiful Babylonian weeping willow will grace the countryside.

Some of my old ladies now grow their own dwarf trees for other and more feeble invalids, by starting stock from their own "plantation" or "touching" me for new material.

There is much hope and a great deal of joy awaiting the confined invalid by having within grasp his very own *"forest in miniature."* Again—*life reflects life.* The problems of a hopeless cancer patient are slightly unburdened for the fleeting weeks yet spared.

The dwarf tree "chum" of the bedside and the human patron bear a mutual good morning of delight.

Fig. 5. Dwarf tree culture for the geriatric sick-room.

Wisteria, The Hanging Gardens of Babylon

In my gardens I have maintained many hidden *woodsy paths and bosky dells,* joining at times with the "bird watcher's paradise." At intervals I have trained wisteria vines to arch over a sunny opening in a garden path. Many oldsters have admired the beautiful lavender pea clusters, bobbing in the wind, and have requested that I start slips for them from these Hanging Gardens of Babylon.

To carry out such a plan, I select 8-foot runners, a year or more old. Each is folded back upon itself, forming a 12-inch loop, but not severed from the mother plant. The bow end of the loop is slightly excoriated, dipped in root hormone, then lowered into a 12-inch hole. The earth is tamped

firmly about the afferent and efferent members. After a good two years of rooting, the "umbilical cord from mamma" is severed, and the new plant is on its own.

Fig. 6. Felix, the wisteria, climbing to high heaven on the wild pear tree, producing the hanging gardens of Babylon in a geriatric garden.

The next spring this new individual vine is dug up along with a definite degree of root protection, potted and presented to some energetic or hope-requiring geriatric gardener.

Some of my "wisteria children" are thriving in Chicago, Denver, Orlando and in many Michigan communities, without any evidence of botanical frustration. For the devil of it, I have named each vine missionary *Felix I, Felix II* and so on.

One of my gift ladies soon learned the hang of "runner culture." She took me into her garden. There was *Felix XII,* proud as punch. But near the parent, nobly waving tendrils in the breeze and living an independent life, was—*Felicia!*

Of course there must be quite a *biological kick* left in a geriatric soul, who deals with contumacious woodsy paths and bosky dells. I ask no more of these people in physical endeavor than I expend myself, and I have honored many a Doubting Thomas by performing as pallbearer at his elegant funeral.

Also, some of my vigorous patients have trained their "Felicias" over the windows of certain shut-ins, who are confined or partially disabled.

"Doing" is great fun but "receiving" is also a joy. One church group has organized a Golden Age Club around the theme of making the Hanging Gardens of Babylon bring inspiration to the poor in heart, whether the shelter be palace or hovel.

The Hand-Carved Mirror

Many old men and a few old women have newly taken up my old hobby of mirror carving. I select a good piece of western white pine, about 1½ inches thick and of dimensions to fabricate a moderate-sized mirror, say 16 x 24 inches, or thereabouts. There is no hard and fast rule. I outline on the slab of wood the design of the future mirror frame, giving indications as to the depth of carving and where the cutting should reach to the future

Fig. 7. Geriatric "art": hand carved mirrors, followed by flamboyant paint-brush.

glass level. Niggling flowers, leaves (plain and fancy), cathedral windows—nothing need faze one. In this field we are all amateurs, and therefore, no apologies are registered, much to the consternation of certain critical observers.

A good set of hand chisels—plain, mitered and grooved—will suffice for carving. One soon learns when to push, when to shove, when to wiggle and when to touch ever so lightly. Sandpaper of several degrees of coarseness, applied in series, will grant a snappy finish to the work.

If a portrait is desired as the center of a filagree pattern, the work portion of the slab is lowered by chiseling a half inch or so in depth, sanding to a nice level, leaving a frame thus established as the untooled surrounding area.

The art tracing is instituted upon this depressed level, and the carving work proceeds towards some attempt at a simulacrum of the original pattern designated.

Finally, after both vigorous and delicate sand-

(Turn to Page 2025)

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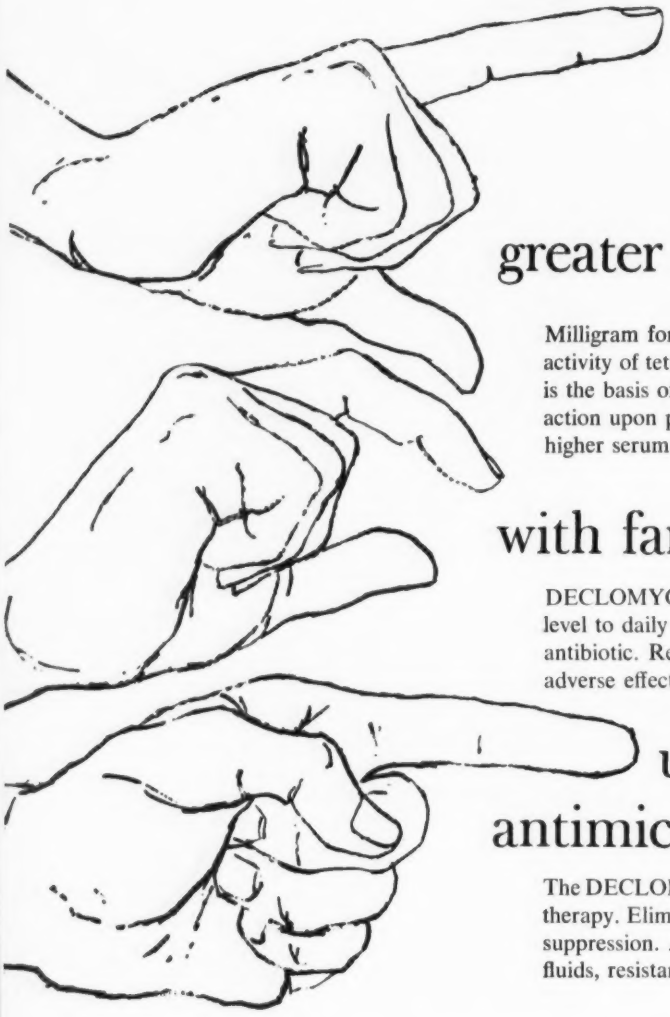

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*Hirsch, H. A., and Finland, M.: *New England J. Med.* 260:1099 (May 28) 1959.

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(Continued from Page 2020)

ing, a groove is created in the rear to hold the future plate glass mirror.

Now, finally oil painting comes to the front. One need not be timid. Many a dowager has let her sobriety fly to the winds with a risque flourish. I have created a metallic green to accentuate leaves by mixing blue and gold paint. A blond urchin, peering through a cathedral window, receives her tone of tow-headed hair, slightly soiled, from the mixture of white and gold paints. Patterns of aurora borealis may splash the border.

It is better to employ no glue or laminations, since they prevent good chiseling techniques and are apt to warp in the future. A solid slab of seasoned wood is the best choice for the geriatric attack.

The finished product possesses a frame of carved, sanded and painted art, and the inserted mirror of plate glass will last anyone's lifetime.

Any geriatric soul, male or female, with a yen to fiddle with the fingers (deformed or otherwise) becomes an *expert* by the time a third mirror has emerged from the *department d'cauchement* in the basement. The fortunate giver grants with magnanimity. The invalid recipient may sing her paeans for the moment, but she later primps for the future.

Many a haggard old harridan, after receiving a flamboyant geriatric mirror makes a bee-line for the beauty parlor, joining the doll-up, dress-up, clean-up, wash-up campaign.

There is created a new majesty from within by reflections from without.

Other Possibilities

There are myriads of other possibilities in the geriatric husbandry and rehabilitation fields where dynamics of the elderly could be elaborated upon. Here one could mention the bedside cotton gardens over glass water containers and the miniature cactus garden. Let me also include *Bryophyllum* culture from the hanging leaf plantlets, the creation of the New England Tizzy flower arrangement, to say nothing of the lesser creative arts.

In the appendix of a previous paper,[22] I have outlined some thirty-two challenging suggestions.

Summary

In delving into the dynamics of geriatrics, I have attempted to reveal that a physician now enters a very real part of community living. His job is not only to treat the body, but he must enter into "the dry husks" of older years and help add activity, hope and self-respect to the poor in heart.

Our older fraction of humanity which will soon equal our public school population, is indeed a treatable entity. The ideal physician and the hoary patient find mutual identification with each other.

Several forms of husbandry have been outlined, whereby old people may come back to a life of self-help and self-betterment. I have introduced bird breeding, hanging herb gardens, mum cultivation, bird-watcher's paradise, African violet jungles, dwarf tree culture and the Hanging Gardens of Babylon. I have also outlined some of the detailed possibilities in the creative fields of wood carving and oil painting.

If such subjects become distasteful to you, let me hopefully suggest that they well might stimulate some further personal dynamics in fields far removed. I shall still feel rewarded, if something constructive sprouts from a stray seed.

Let me mention again that the untouched and unmentioned fields are numerous and indeed inviting. You hereby receive my invitation to begin digging in your own bailiwicks, in your own stylized manner. However, gimble up, raise that pickax and let fly!

715 N. University Avenue

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Atherosclerosis *VERSUS* Inherited "Iron and Copper Pipes"

By Henry J. VandenBerg, M.D.
Grand Rapids, Michigan

IN the voluminous discussions of atherosclerosis these days, genesis is given a great deal of emphasis presumably in the hope that something may be found to prevent or control it. Factors in the genesis of atherosclerosis mentioned are heredity, sex, hormones, obesity, hypertension, poorly controlled diabetes, hypothyroidism, familial hypercholesterolemia and others, but the greatest emphasis, by far, is the role of dietary fats. I do not want to disclaim any of the possible perpetrators mentioned, as factors, but I think the matter of heredity needs emphasis. In fact, heredity comes to the fore at the very outset in that the atheromatous spots and plaques are preceded by inherent anatomical and metabolic defects in the intima. That view seems to be generally accepted rather than the opposing view of deposition of lipids coming first. The evolution of the depositions does not need to be recounted here.

The quality of the piping in a plumbing system as well as the corrosiveness of the fluid passing through the pipes determines the scaling and rusting that takes place. For example, everyone knows that iron pipes corrode and fill up sooner than galvanized pipes. It is also known that irrespective of the corrosiveness of the fluid, copper pipes do not take up corrosive substances from the fluid passing through them.

All physicians are familiar with the characters and qualities they possess by virtue of ancestral transmission, in other words, inheritance. Longevity certainly is one. Osler's aphorism, "one is as old as his arteries," was an observation and deduction by a master clinician that is still good.

In routine autopsy work, it is always striking to note that those in the eighty and ninety-year-old group are relatively free from atherosclerosis. They have died of something other than vascular disease. They have inherited "copper pipes." Most of them, no doubt, have been on a normal diet without restriction of animal fats.

From the Blodgett Memorial Hospital, Grand Rapids, Michigan.

Here is an overly nourished German restaurant man, a beer drinker and a pork eater. At the age of sixty-eight, he died of carcinoma of the large bowel. At autopsy, it was striking how free his aorta was of atherosclerosis. His coronaries and cerebrals were wide open. No spotty deposits or narrowing from lipid deposits in the vessel walls could be found. He had inherited "copper pipes."

Any clinician of large experience can recount stories of families in which there have been multiple coronary deaths that were out of line and way ahead of established rates per 100,000 of coronary deaths.

A friend and colleague, Dr. Robert Puite, internist in Blodgett Memorial Hospital, gives me these stories of three families in his practice with "iron pipes." Three cases of atheromatous plaques in brothers between forty and fifty years of age, all in the carotids and basilar arteries (two by arteriograms); in other words, all in the cerebral circulation. In the Kiel family, four brothers had coronary occlusion, one at thirty-nine and the other three in the forties. The father died of a coronary attack. In the DeJonge family, three out of four brothers had had coronary occlusion by age thirty-nine and the fourth at age forty-four. Such stories make a strong case for inheritance. In these cases, such alleged incriminating factors as diabetes, hypertension, hypothyroidism, familial hypercholesterolemia and others were absent.

The more profound knowledge one has of medicine, the more one's interest turns to the validity of inheritance. Let us turn to cancer for the moment—its susceptibilities and immunities and its racial and geographic variances. To cite a few examples, cancer of the alimentary tract is relatively more common in men than in women, while cancer of the reproductive organs is more common in women. In the Netherlands, cancer of the breast and uterus is said to be about one-half as common as in England, but cancer of the gastrointestinal tract is much more common. In Japan, cancer of the breast is also relatively rare but cancer of the

uterus is common. Negroes and Orientals seem to be relatively immune to carcinoma of the thyroid. Jewish women rarely have cancer of the cervix.

The retinoblastoma of young children as it occurred in families in the earlier days was thought to be a sporadic occurrence. Now it is definitely considered hereditary.

Recently a woman patient had a blue-black mole on the forearm. When told of its potentiality, she said, "My sister who is here with me has one and my mother also, and all in the identical location." It is impossible to believe that such instances do not represent some hereditary factor in the germ plasm which acted as a determiner for these lesions.

It is not my intention to discuss or review the entire subject of atherosclerosis and the alleged contributions. I shall limit what I have to say about it, and briefly, to the relationship of ingestion of animal and hydrogenated vegetable fats which are given such great emphasis and study.

From the literature, including panel discussions by experts, one has to conclude that while cholesterolemia can be lowered approximately 25 per cent by rigid diets restricting animal fats these authorities are not yet convinced a high cholesterol value necessarily increases the deposition of lipids in the vessel walls. Therefore, the matter of disciplinary diets to avoid atherosclerosis and so alter or change the incidence of coronary or cerebral artery disease may not be indicated. So there we are!

The little advancement being made with this troublesome problem is probably because atherosclerosis comes within the realm of degenerative diseases about which little or nothing at present can be done. One wonders whether anything ever can be done. They certainly are just as potent as ever. Gray hair and wrinkles belong in this same category.

It has been said that atherosclerosis can be prevented because there are millions who do not have atherosclerosis, at least not to the point where it causes illness or death. My point is that those who are relatively free from it, many of whom no doubt have been on normal diets including in many instances generous amounts of animal fat, do not have advanced atherosclerosis because they have inherited "copper-pipes."

In support of my contention, allegedly perpetrating factors such as diabetes, hypertension and hormones also come within the realm of inheritance.

The old trite saying, "If you want a long life, choose your parents and grandparents," is to the point; in other words, a favorable heredity is the important factor.

Should the time arrive when a rather definite relationship between the intake of animal fats and atherosclerosis is proved, one wonders how much credence will be given it by most people insofar as changing eating habits is concerned. For instance, the relationship between lung cancer and cigarette smoking is definite and proved and has been widely publicized and yet the cigarette smoker takes the attitude that "it is not going to strike me." He thinks of it as lightning. It is going to strike the other fellow. It is that idea that has always prompted me to believe that cigarette smoking would be restricted very little.

Those who are relatively free from atherosclerosis at an advanced age have inherited "copper-pipes." They die of something other than vascular disease. Those who go along to the older age level and then develop coronary and cerebral disease may have inherited "galvanized pipes." Those who die from atherosclerosis between the ages of forty and fifty years have inherited "iron-pipes." The "plumbing" seems to be basic, the circulant only contributory.

RAGWEED

Ninety per cent of all the ragweed so intensely hated by hay fever sufferers could be eliminated every season if farmers plowed their grain fields early in August, says a University of Michigan meteorologist.

James B. Harrington, research associate for the University of Michigan Research Institute, says also that a significant amount of the remaining plants could be killed by spraying a six-inch wide strip of highway shoulders where the grass meets the gravel.

Then, to seek further comfort, Harrington indicates the "victim" should make sure there is no ragweed in his own garden.

One of a number of U-M researchers conducting a five-year study of hay fever for the National Institutes of Health, he reports surveys of grain fields revealed "fantastic" numbers of ragweed. Since the plants begin to bloom early in August, plowing them under would put them out of the way for the season.

Learning to Live in the Community

A *Sociological Analysis of Some Problems in Teaching Community Roles to the Mentally Retarded*

By Christopher Sower, Ph.D.
East Lansing, Michigan

THIS paper is based on the premise that there have been developments in the social sciences during the last decade which can be used in helping many types of handicapped persons become more useful citizens in the community. It seems obvious that the social service and other practitioner fields have lagged in learning to apply the new theoretical and empirical knowledge which has been developed through social science research. This is illustrated by a statement by the great physicist Robert J. Oppenheimer in a recent Cooper Union lecture on "Analogy in the Social Sciences." He stated that new knowledge is developing at the fantastic rate of doubling every decade. This applies to the social sciences as well as other fields. In the absence of systematic efforts on the part of the social and other professions to master and apply new theory and validated information, it is not surprising that there now is a great lag between existing knowledge and its application to specific problems such as to the education of the handicapped.

This paper will attempt, in much too brief a time, to present to a non-social science audience some possible applications of new knowledge to understanding personality development and social adjustment as they pertain to different points in the social structure of the community. This effort requires several steps which will represent a somewhat different approach from that which is customary for most members of the audience. It is probable that most of the attention of people working in the interest of handicapped persons has concentrated on the physical and psychological individual. Two ideas merge at this point. It is obvious, first, that all persons must learn to live in groups, consisting of families, friendship groups, schools, work groups, et cetera. Second, as the sociologist, the anthropologist, and the social psychologist have concentrated on study of such group behavior and the ways in which individuals learn to fulfill what is expected of them in different social situations, it seems obvious that these fields have a legitimate contribution to make to the primary interests of this conference. Of necessity, the first problem of this paper and its primary concentration will be on existing theory and empirical information about the social structure of the community, and the ways in which the individual enters the sociological community and performs according to the expectations of the community social systems. This means as a minimum, at least a brief consideration of social system theory as it pertains to the community.

The second problem will be some attempt to apply theory to the problems of understanding the personality development (in itself a social as well as individual entity) and the social adjustment of the mentally retarded child as he becomes socialized into appropriate social roles within the community. A third and final effort of the paper will be a brief consideration of some of the problems of applying existing theory and established knowledge to programs which deal with the education and social learning process of the retarded persons in our communities.

Before dealing with these three problems, it will be helpful to consider briefly, at least, one major contribution of the traditional social problems field. It seems plausible that a major change has been produced during the last half century in the beliefs of many people about the causes of physical and mental handicaps. Such beliefs, at least in the Western world, now are much more in line with scientific evidence. They appear to have gone through four historic stages:

1. For centuries man believed that physiological states were based on supernatural causes. People

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This paper is based on a presentation to the annual conference of the Michigan Association for Retarded Children, Albion College, Albion, Michigan, June 27, 1958.

were supposed to possess demons, spirits, and the like. Also, such physical states were believed to be punishments for evil and sinful behavior. In Christianity, it was believed that the sins of the parents were visited upon their children and even upon grandchildren. The belief in traditional Hinduism is that handicapped physical states of the individual are based on his own sinful actions in a former life; and can be corrected in the next birth only by meritorious actions in this life.

2. With the dawn of the scientific era, the idea of natural processes and natural causes became prevalent.

3. The era of the development of the biological sciences, however, produced the belief in hereditary determinism of physiological as well as personality states.

4. Gradually evidence upon evidence has provided the proof of the basic idea that personality is the result of the impact of the society upon the biologic individual. This leads to the present fairly well-established and accepted premise that the most important consequences upon the development of personality are from the growing-up process in the community. They are physiologically determined to only a minimal degree. In fact, one of the most recent developments in medicine is the knowledge that some physiological illness is determined by mental states, which, in turn, are directly related to the individual and his social relationships.

Now to a brief consideration of the three problems mentioned above.

The Community as a Social System

There is space here to deal with only two of the elements of the community social system: *position* and *social role.** Some definitions are important. The concept *culture,* as used in the social sciences, provides the primary orientation and base for the social system. The culture consists of the total body of beliefs, practices, and artifacts which are passed on from generation to generation in any society. The *social system* is any group of two or more persons who are in meaningful interaction, and the patterns of group content, its organization, and control which affect the behavior of its members. The sociological community is defined as a social system. It contains a multiplicity of subsystems consisting of neighborhoods, families, and a wide variety of groups based on friendship, occupations, religion, education, et cetera.

Within the sub-systems there are many defined social positions which given individuals occupy at different life stages and at different times within any stage. While the concept *social position* (sometimes called status position) is somewhat hypothetical, it is understood more clearly and concretely by its accompanying concept *social role.* By definition, the role denotes the behavior which is expected of any individual as he occupies any given social position. Any society has its basic social positions organized around such fundamental categories as age, sex, and social status. Persons occupying different positions according to these categories are expected to behave according to the community definition and expectations of the position. The social role consists of rights, privileges, desired expectations, and obligations. Also there usually are defined patterns of extent to which deviancy is permitted for the different specific patterns of behavior within the role. Figure 1 attempts to illustrate the broad pattern of *position-roles* in any community showing the major categories of positions based on age, sex, and social status which exist in any community and any society.

Some further elaboration may assist in understanding the concepts position-role. They were first developed by the anthropologist Ralph Linton.† His classic illustration of the position of the driver seat in an automobile still is very useful. He compared position to the vacant driver's seat, and showed how there were no role obligations until it was occupied by a person. Any person must have the socially-defined right to occupy the driver's position, and this has age and other limitations. Likewise, there are limitations to occupancy of most positions in any community. Young people cannot occupy positions normally

*According to Loomis and Beegle, the social system contains the following elements: **Beliefs,** Sentiments, Ends or Objectives, Norms, **Status-Roles, Power** (Authority and Influence), Social Rank, **Sanctions,** and Territoriality. *See* Charles P. Loomis and J. Allen Beegle: Rural Social Systems. Chapter 1. New York: Prentice Hall, Inc., 1950.

For further treatment of the concept social system, see also, Talcott Parsons: The Social System. Glencoe, Illinois: The Free Press, 1951.

†Ralph Linton: The Study of Man. New York: D. Appleton-Century Co., 1936. (See Chapter on Status, and one on Role). He used the term status for what is now coming more and more to be labeled as position, in order to avoid confusion with the general meaning of the concept status as a position in a social hierarchy.

allocated to adults or aged, males cannot occupy positions held for females, and the difficulties of crossing the social class lines are well illustrated in technical literature as well as in fiction.

As with the illustration of the automobile driver, once any given person occupys the position, then certain definite rights, privileges, and obligations are impinged upon the occupant. While any occupant is allowed a certain amount of deviancy, he likewise is granted praise for successful fulfillment of high skills in the role, and criticism for low fulfillment of expectations. Sometimes there is conflict between different roles which are impinged upon a given person such as between the feminine role and the roles of the auto operator or performer of other mechanical skills. Traditionally, for instance, femininity was considered inconsistent with ability to use mechanical tools. It is probable that certain basic roles such as those pertaining to a demonstration of masculinity and femininity in the culture usually are rated ahead of others, and will take precedence in case of conflict.

There still are problems in arriving at sufficiently precise definitions of the concept social role for research purposes, even though these are being developed rapidly. There is also the problem of disagreements in role definitions between important determiners for any given role and lack of consensus for any given position. The classic illustration of non-consensus is the difference between parents' definition and that of a teenager's peer group as they impinge upon the individual. From this, what has come to be called *reference group theory* has developed, indicating that the individual becomes selective in determining which role definition is to be followed in different situations. Modern life apparently contains many fairly inconsistent role expectations leading to a whole new area of analysis pertaining to the relationship between how roles impinge upon any given person and how this situation affects the development of emotional stress and mental ill health.

There are situational differences in role definitions. A person behaves differently, for instance, even in his family, when the members are alone, or when an outsider is present. There is the classic obligation that one must remain loyal to his most basic membership groups when they are attacked by outsiders. One should not "wash dirty linen in public."

One role alteration is of particular interest to the field of medicine. This is the alteration of role expectations of the person who becomes sick as well as those of others who are related to the sick person in significant ways. When one becomes physiologically ill, he is obligated to enter the socially-defined "sick role," and behave like a sick person. This in turn alters most of his social obligations, rights, and privileges. Also the obligations and rights of "significant others" are altered. When a man becomes sick, definite new obligations set in for his wife, children, neighbors, and work companions. When a woman becomes sick, there are role alterations for her husband and children, as well as those of the husband's work companions in case he has to stay at home to take care of his family.

There are especially interesting implications of the sick role as it pertains to chronic illness. Some people who are medically-defined as physically ill refuse to enter the socially-defined sick role, as in the case of some cardiac patients. Also, occupational rules may not permit a person to stay home from work in a sick social role even in order to carry out a physician's recommendation that this is to be done in order to prevent more serious illness. Many physicians refuse to enter the sick role even when they know that physical illness is apparent. Some people, who cannot be medically defined as physically sick, seem to desire to enter the sick role. There is a classic literature of apparently medically non-sick people attempting to use the socially-defined sick role as a means of controlling the role obligations of others toward them. This should be sufficient to illustrate briefly some of the implications of role theory. Some readers may be interested in further reference in these areas.**

The next problem is to relate role theory to retardation.

**Neal Gross, Ward Mason, and Alexander McEachern: Explorations in Role Analysis: Studies in the School Superintendency Role. New York: John Wiley and Sons, Inc., 1958. (See especially the first four chapters for an excellent summary of knowledge about role theory.)

Talcott Parsons has developed some interesting ideas about sick roles, and modern medical practice: Talcott Parsons: The Social System. Glencoe, Illinois: The Free Press, 1951. See Chapter VII, Deviant Behavior and the Mechanisms of Social Control; and Chapter X, Social Structure and Dynamic Process: The Case of Modern Medical Practice.

§Some of the available literature has been complied in the following book: Jessie Bernard: Social Problems at Midcentury; Role, Status and Stress in a Context of Abundance. New York: The Dryden Press, 1957. Chapter 10.

Mental Retardation: Role Understanding and Role Fulfillment

The application of role theory to mental retardation still is in the speculative stage, even though certain conclusions seem rather obvious.§ Normal people in any community of any society are expected to be able to learn the role meanings and role expectations which are assigned to the occupants of various positions. As many social roles have complex meanings, it would seem obvious that persons at different lower levels of mental ability would have a progressively more difficult time in learning the role meanings and in performing role expectations. While any society must have some social positions for the severely handicapped, still there are the borderline areas where normal expectations may be impinged upon persons who do not have the ability to carry out the role performance.

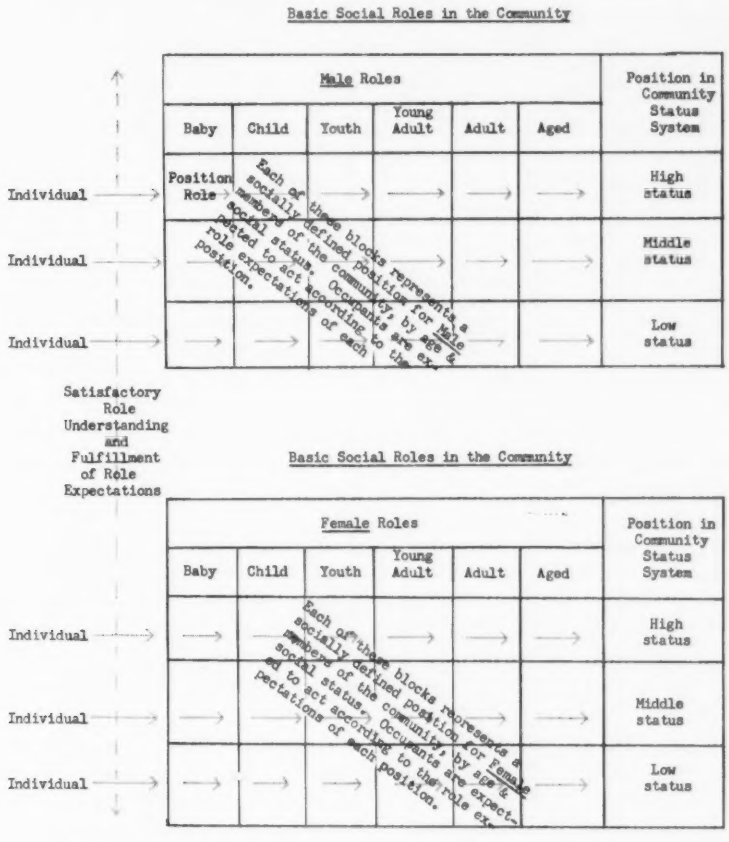


Fig. 1. Model for the development of a satisfactory social personality.

Some roles would seem to present special difficulties. In our culture, those pertaining to humor, kidding, and courtship carry complex and diverse meanings. Much kidding, for instance, presents a situation in which the individual really is expected to respond to the actions of others in a manner exactly opposite from that which a literal interpretation would indicate. He is supposed to laugh at a practical joke, for instance, when it would appear that he has been insulted. The traditional bullying character of some mentally retarded males probably is a direct result of their inability to understand the double meanings in kidding roles. Likewise, the retarded girl would seem to have difficulty in differentiating between genuine praise and flattery. The use of flattery has very widespread and diverse meanings in our culture. It would seem to present special problems to the retarded girl in such instances where, for example, she must

learn to distinguish between genuine praise, and the use of flattery as a means to gaining other ends, such as in sexual exploitation. Even with little research evidence it would appear plausible that some of the major difficulties of the retarded are in understanding complex role meanings. Also, there is increasing evidence that the social personality is formed, at least in part, from the perceptions which others hold of any given individual. It would seem obvious that most retarded persons are perceived as different by others with whom they come into contact. This evident fact must eventually be resolved in some way by the retarded person.

One implication of role performance problems for retarded persons would seem to have a direct relationship to mental health. If a person is expected to perform actions which he is not capable of enacting, there is a possibility of emotional stress developing. If this occurs, a well-established result probably develops in that emotional stress is likely to inhibit the performance of many bodily functions, including the learning process. In this instance, a vicious circle theory can be developed, as blockage in the learning process only further hinders the ability of the individual to understand and perform expected social roles. This in turn will likely develop more emotional stress, and so forth. Some of the problems of blockage in role performance are illustrated in Figure 2. Even though there is little research in this area, mental retardation would appear to be only one of many possible barriers which can prevent or hinder role understanding and role performance.

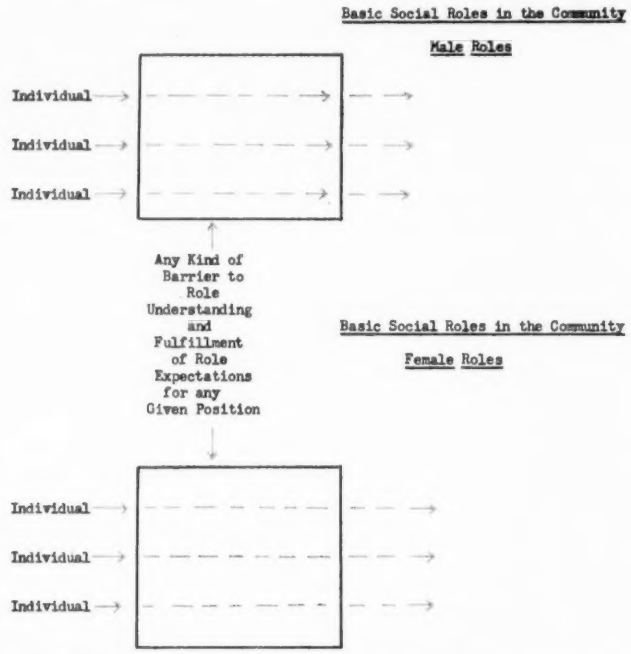


Fig. 2. Model for the development of an unsatisfactory social personality. Details are the same as those pictured in Figure 1.

There would seem to be two general clues from the above which can be used to assist the growing-up process of retarded persons:

1. Alter the expected social role expectations for given individuals and situations, and plan them in accordance with the performance ability. This would seem to apply to all levels of intelligence. The American school system has been especially vulnerable to the charge of attempting to equalize the expectations for all levels of intelligence. The traditional European system has avoided the mistake of setting levels of expectation which are too low for persons of high intelligence. While the American system has not produced the top level theorists, in most fields it

has educated a mass population. It would seem just as serious a mistake to expect middle level achievement from high intellects as to expect high level work from middle level persons, or normal level achievement from persons with a lower than normal level of ability.

2. Learn how to do a more effective job of teaching complex social role meanings and performance to retarded as well as to normal persons. While these two ideas are inherent in much of the work pertaining to educating the mentally retarded, still it would seem that more systematic research attention to these areas would be productive in developing more predictably effective methods.

One possible area for experimentation could come from certain practices which are being developed in what has come to be called group psychotherapy, namely the use of planned small group experiences as a teaching and learning device. Beck indicates how Dreikurs has called group psychotherapy "the third revolution in psychiatry."* Small group research, starting with the Air Force problem of how to construct effective air crews, has been one of the most active and productive areas of social research during the last decade. It would appear plausible that social role training for retarded children could make effective use of planned small groups. This kind of learning would seem to have far greater potentialities for teaching effective performance of community roles than the over-concentration on formal eduaction which seems to have characterized much special education.

A final idea relates to many other types of persons in the population which have handicaps. One can ask the question of what are the consequences upon any personality of being a useful citizen, as contrasted with those of being a useless person, or a liability to his society. There would seem to be increasing evidence that the socialization of personality is a consequence of the total living situation of the individual, and that it continues into late old age. Contrast, for instance, what happens to the personality of old people who remain active and useful with those of many thousands who only sit out their last years in a useless life in an old age home. What are the ultimate possible consequences upon the total society if it is unable to prevent the development of a larger proportion of "liability citizens?" Our society will likely have at least a half century of serious competition from the communist systems. In such a competition situation, we may discover that we cannot afford to have so many liability citizens sitting idly in communities, institutions, prisons, and old peoples' homes.

It would seem quite evident now that the social sciences have provided adequate theory and tested knowledge to develop and conduct significant experimental programs which can have the predictable results of producing useful citizens from many types of children who formerly have remained only in liability citizenship.† One advance conclusion from this knowledge seems obvious. This is that the accomplishment of such a task will likely mean a serious re-planning of many of our social, educational, and medical facilities. One of the most clearly established facts is that early childhood periods are crucial for later personality and physical development. The customary spasmodic and chance planning for personality development cannot produce the desired results. Present theory and demonstrated fact clearly imply the need for consistent, systematic, and long-time planning. This probably cannot be accomplished with the present maze of duplicating, overlapping, and outmoted concept of social agencies. The pattern of the new urban atomic age is now taking shape, and the inadequacy of the present conception of many social services becomes increasingly evident. At the very time when urban and regional planning are designing and building new highways and other facilities for the new era, there is little systematic thinking, research, or planning for the social and physical needs of building an efficient and productive population. Yet, for the first time in history, the basic ideas for such planning are ready to be put into operation. One of these is the need for systematic planning for long-time research. It is only in this area that the writer claims some competency.

Some Research Considerations

This final section will be based on the premise that the social science fields now are developed to

*Dorothy Fahs Beck: The Dynamics of Group Psychotherapy as Seen by a Sociologist: Part I: The Basic Process. Sociometry, 21:98-128 (June) 1958.

†For instance, such a contribution has been developed in this area of delinquency. *See* Albert Cohen: Delinquent Boys; the Culture of the Gang. Glencoe, Illinois: The Free Press, 1955.

the stage of being prepared to make major contributions to the solution of some of the problems of retardation, as well as the other traditionally-defined social problems fields. These areas now lack the solid body of systematic research data which is needed to provide the necessary base of knowledge for adequate planning. Yet, as this paper has attempted to demonstrate, the basic theory and research methods are developed and ready to be applied to these fields. At the same time, it would seem that the social problems fields can learn some important lessons from other fields which have profited from a major concentration on basic as well as applied research. Two illustrations of this are in the fields of medicine and agriculture. Here, through the research functions of the medical schools and other university research programs, and of the public health departments, many phenomenal research findings have made major contributions to the field of medicine. Likewise, through the vast programs of the agricultural experiment stations of the state land grant universities and of the state and federal agricultural departments, similar developments have occurred in the many fields pertaining to agriculture. It would appear plausible that some similar organization of research effort in the social sciences which concentrates on the various social problems fields, would, over a period of a few decades, produce comparable results. An important feature of the above-mentioned successful research programs is that there have been systematic efforts to feed research findings back into action programs, and into professional training, both pre-service, and in-service.

There would appear to be a logical approach to research pertaining to retardation. The first step could be based on the observation that many types of retarded and otherwise handicapped persons in different community settings have passed through the growing-up process. Likewise, there have been various types of results from this process, all the way from useful citizen roles, to useless roles, to liability roles which languish in mental institutions and prisons. A systematic analysis of the consequences of this vast existing laboratory would seem to be the most logical first step. The second research effort could develop as testable hypotheses were constructed and experimental programs were ready to be conducted with children and adults. This then could lead into the usual research process of developing basic theory: testable hypotheses, and then actual experimental work. Findings could then be fed into action programs. It would appear that most of the traditionally-defined social problems fields have a common core of theoretical and researchable problems. Included in these certainly would be retardation, mental illness, poverty, alcoholism, delinquency, and crime, and certain areas of chronic illness. Many of the medical developments of rehabilitation and what has come to be called "social medicine" could also be included.

The final idea of the paper pertains to the nature of the research effort. There is one further characteristic of research in medicine and agriculture which may be its most important feature, and its most significant potential contribution to the social sciences. It would appear that the most successful research results have come from dedicated minds which are permitted to work for year after year on given problems. Social science has suffered from too much concentration upon vast social survey methods, instead of a steady approach to the development and testing of significant hypotheses. We have learned that even vast sums of money which are spent quickly do not provide a substitute for continuing concentration of research scholars upon problems in which they have a personal dedication. Medical and agricultural research has been much more characterized by this kind of persistency than has social science research.

The largest single problem in social research today is in the lack of continuing bodies of funds to provide for long-time research effort. We lack the facilities to permit a fine mind to spend year after year, and even decade after decade upon various research problems to which he wishes to dedicate his professional life. It takes years to train competent research personnel, and there is heavy competition for persons with such training and ability. Most research must be done at universities, and it is difficult to obtain and hold personnel without adequate and continuing funds to provide for permanent tenure. It is the firm belief of the writer that such a continuing research effort in the social problems fields would begin to pay dividends within a few years, certainly in less than a decade. With the vast public and private funds which are being expended in an almost

(Continued on Page 2061)

Editorial

THE HOUSE OF DELEGATES COMES THROUGH

Observations over the years have convinced us that groups who are given problems to solve and actions to take, if supplied sufficient data and adequate time for study and observation, will wind up with a very constructive action.

The House of Delegates of the Michigan State Medical Society is to be congratulated on its understanding and final actions which took place at the session in September and October, 1959. There was concern among many members of the Michigan State Medical Society and of the general public over the outcome, because of the apparent discord and disunity of the profession as reported in the public press and in the published controversial material in our own communications. The official minutes of the Annual Session are not yet ready for release but will be published in a special section of THE JOURNAL in January. Sufficient material is on hand, however, to assure our membership and our public that Michigan State Medical Society and Michigan Medical Service will carry out all of the promised and guaranteed services provided for in the service contracts now in force and being sold (over a million seven hundred thousand) which will run until 1961.

The House of Delegates advocated some changes in the present program such as a change in the method of determining the family income, a change in the upper limit for service contracts and a change in the procedure regarding payment of non-participating doctors. They also advocated a limit of two three-year terms for the Board of Directors. They recognized that the National Blue Shield is making a study of the Michigan problems and that the University of Michigan (sparked by the Governor's Commission) is also making a study of the basic medical service problems of the State through a grant of $327,000 by the Kellogg Foundation. They authorized the appointment by the House of a study committee to keep in touch with these various problems and these two study groups who will probably be reporting in the spring of 1960 with most valuable information.

Resolutions passed by the House of Delegates include the following, which are to implement certain changes:

RESOLVED: That the House of Delegates approve the issuance of such "Income not certified" policies as in keeping with the American tradition of freedom of choice, and be it further

RESOLVED: That the House of Delegates request the Directors of Michigan Medical Service to give each purchaser or group purchaser of its contract as the case may be, the option of choice of plans currently offered for sale and that the eligibility for service benefits under income-not-certified contracts be determined by mutual agreement between the physician and patient, and be it further

RESOLVED: That the Michigan State Medical Society continue to sponsor a prepaid medical care insurance plan such as Michigan Medical Service.

RESOLVED: That the Board of Directors of Michigan Medical Service be requested to amend its bylaws so that any member of the Board of Directors who shall have served two consecutive terms of three years each, making a total of six years, be ineligible for re-election for a period of one year immediately following the two consecutive terms.

RESOLVED: That the basis for service contracts be determined on total family income and that any preceding action to the contrary is hereby rescinded and be it further

RESOLVED: That as soon as feasible, the maximum total family income for service contracts be established at $6,500, and be it further

RESOLVED: That the present status of service contracts including the sale of existing contracts be continued until such time as these changes are satisfactorily implemented, and be it further

RESOLVED: That the Committee of the House of Delegates of the Michigan State Medical Society appointed to work in cooperation with the advisors from the National Blue Shield Committee for Review of Michigan Medical Service problems be instructed to include in its study the remuneration for the care of prolonged and/or complicated cases and be it further

RESOLVED: That this Committee shall report its findings and recommendations to the House of Delegates at the next meeting.

RESOLVED: To avoid this distinction between participating and non-participating physicians, it is recommended that the Michigan Medical Service incorporate on the Doctor Service Report form a statement of as-

(Continued on Page 2037)

AGING—A COMMUNITY RESPONSIBILITY

President's Page

Milton A. Darling

President

Michigan State Medical Society

During the past fifty-nine years, the life expectancy of the average citizen has increased by more than twenty years. Our present population comprises more than 15 million persons past sixty-five years of age. Percentagewise, this is about 9 per cent of the last census.

This manifestly represents a healthier nation. Medical and public health measures have reduced communicable diseases, infant and maternal mortality and industrial hazards. As physicians, this can be a source of justifiable pride.

But why should the arbitrary figure of sixty-five be established to separate the old from the middle-aged? Aging is a continuing process, beginning at birth and ending in death. History is replete with individuals who made their greatest contributions after the Biblical "three score years and ten" had been attained. Paradoxically, many persons are physical derelicts at a much earlier age. Chronological age cannot separate the old from the young.

Social planners have conceived the idea of solving all problems of the "elders" by legislation in the form of compulsory health insurance. While the aged do have problems, only a minor portion are in the health field. Older people not only have longer but they live healthier lives as well. Good health is far more than the absence of disease and infirmity. It involves the positive state of physical, mental and social well-being. Loneliness, rejection and lack of useful activities must not be permitted.

Health insurance, on a voluntary basis, is available to this group through Blue Shield at a lower rate, thus assuring health care in home surroundings.

Responsibility for this group is not a federal, but a community project and must be assumed by family, friends, church, clubs—that complex group we call Society.

A Merry Christmas and a Happy, Healthy New Year to each of you!

THE HOUSE OF DELEGATES COMES THROUGH

(Continued from Page 2035)

signment to be signed by the patient or subscriber when payment is to be made to a non-participant.

RESOLVED: That the Statement of Principles of Pre-Payment Medical Care Insurance as approved by the House of Delegates in September, 1957 be referred for review and revision to the special committee of the House of Delegates of the Michigan State Medical Society to be appointed to cooperate with the National Blue Shield Commission. The Committee shall report back to the House of Delegates at its next meeting.

This group of resolutions is a guarantee to our members, to our subscribers, our patients and to the general public that the Michigan State Medical Society and Michigan Medical Service will carry out faithfully the obligations and services provided by the contracts which have two years yet to run. The new contracts issued under the M-75 program are proving financially adequate and are again building up some reserve. The old contracts were losing money at an alarming rate because of increased utilization and liberalization. They had reached the point where change was imperative because benefits to subscribers were inadequate and a complete revision was necessary. Public demand and dissatisfaction among the doctors stimulated the new concept, M-75, which was put into effect by the House of Delegates in 1957. The old contracts are being converted into the new grouping as fast as practicable. These resolutions authorized a continuance of change-over.

RELATIVE VALUE STUDY

In 1957, the House of Delegates authorized a study and development of a relative value scale in Michigan to replace the one borrowed from California. A committee of the Michigan State Medical Society is hard at work and is about to, or already has, sent questionnaires and information to each member of the Michigan State Medical Society asking for information as to the amounts being charged for the various services which the members are rendering their people. This information will be tabulated and studied. A determination will be made not of a fee schedule, but a relative value scale based on the charges being made by the individual doctor, for the hundreds of thousands of services they are rendering their patients.

Considerable apprehension has been expressed in various areas that the relative value scale would be changed into a fixed charge program for all medical services. This particular committee's duty and function is to establish the relative value between various services, not to fix charges.

Any doctor may use the RVS as a guide to determine his fee for a particular service. By considering the locality, economic conditions, cost of living, even dollar depreciation, he may set up a multiplier which can be applied to the relative value scale to determine—not a fixed—but a minimal fee.

KENNETH H. JOHNSON, M.D., PRESIDENT-ELECT

K. H. JOHNSON, M.D.

The House of Delegates of the Michigan State Medical Society at the Annual Session in Grand Rapids, elected Kenneth H. Johnson, M.D., Lansing, President-Elect. We have asked him for material to make the customary announcement of his election including education, practice and other accomplishments, but his modesty compels us to use other sources such as the Ingham County Medical Society. On another page (2050), we are reprinting from *Medical News* an article some of our members may have seen, which gives an acceptable summary of the solution of problems that could have been disrupting but which, largely due to Ken Johnson's keen direction, were solved.

Kenneth Johnson has been Speaker of the House of Delegates since 1957, and Vice Speaker for three years previous to that.

Following graduation from Lansing Central High School in 1926, he took his pre-medical training at Michigan State University from 1926 to 1928. He received his medical degree from the University of Michigan Medical School in 1932 and returned to his home town for internship and residency training at Edward W. Sparrow Hospital between 1932 and 1934.

Doctor Johnson began practicing in Lansing in association with O. M. Randall, M.D. Later, he became associated with his life-long friend, Kenneth Hodges, M.D., from 1935 until Doctor Hodges' untimely death in 1951. Since then, he has conducted a general practice with offices at 1116 Michigan National Tower.

He was President of the Ingham County Medical Society in 1953 and Secretary of that Society

from 1946 to 1949. Currently, he is Chairman of the Ingham County Medical Society Study Committee for Medical Education and is a member of the Preventive Medicine and Public Health Committee and the Public Relations Committee. Doctor Johnson has been a member of the County Society for the past twenty-five years.

He is on the staff of Sparrow and St. Lawrence Hospitals and was Secretary of the Sparrow Hospital staff from 1938 to 1940. In 1951 he served as Vice Chief of Staff at Sparrow Hospital.

Doctor Johnson's present Michigan State Medical Society activities include membership on the New Headquarters Building Committee, the Legislative Committee and the Committee on the Study of Insurance Programs for MSMS Members. He has also been a member of the State Society Public Relations Committee and the Committee on Education in Schools and Universities.

During World War II, he served overseas in Australia and New Guinea with the United States Air Force.

Kenneth Johnson will be the first President of the Michigan State Medical Society from Lansing since 1891.

WHICH PATH TO MEDICAL SECURITY?

It is now twenty years since the medical profession gave birth to prepaid medical care, but its ultimate patterns of operation and control are yet to be determined.

While most of us recognize that the public will make the eventual decision, nevertheless we doctors have it within our power—if we will—mightily to influence that decision. For the simple fact is that, in the long run, the people—our patients —will support that system of medical care prepayment which offers them the best assurance of satisfactory professional service through physicians and institutions of their own choosing.

Today, several contrasting programs of medical prepayment are competing for popular and professional favor—each embodying a distinct concept of the relationship between patient and doctor.

One such program is the limited cash reimbursement program of the insurance industry, which offers the insured certain dollar indemnities against certain medical contingencies, irrespective of the physician's charges for the service required.

Another major program is medicine's Blue Shield Plan, which seeks—through professionally negotiated schedules of payment and, in most areas, through the agreement of participating physicians—to assure the patient of fully paid professional services.

A third program is the "closed panel" of physicians. Operating frequently under labor or other lay auspices, this plan undertakes to provide a comprehensive service through a selected group of physicians remunerated by salary or per capita allowances, regardless of the volume of service required of them.

Which of these programs most faithfully reflects the traditional pattern of American medical practice? Which program is most clearly motivated—as medicine itself is motivated—to render service to the patient and to meet the needs of all segments of the community? Which program returns the fullest value to the patient and most fairly compensates the doctor? Which program best utilizes and protects the modes and ideals of practice that have earned American medicine the envy of other lands?

Which program will the American doctor favor —in the common interest of medicine and the people?

SYMBOLS ON SEPTEMBER COVER

We have had many inquiries about the meaning of the symbols on the cover of the September issue of THE JOURNAL which was devoted to Geriatrics.

Among primitive and medieval symbols, none is more rich in meaning and design than those of the early chemists and astronomers. Developed by the even earlier alchemists and astrologers, these signs provide a graphic history of the development of written communication.

September's cover used the lesser known but equally apt symbols of the four seasons, illustrating the waxing and waning of life.

MISREPRESENTATION

We were consulted recently by the widow of a very prominent doctor asking about insurance problems. She had been told she could not get Blue Cross and Blue Shield. She had subscribed with a well-known Health and Accident Company, had some surgery and had received a rider from the company limiting her policy. She had conferred with two other companies and wished ad-

vice on what to do, since she had been told by agents she could not get Blue Cross-Blue Shield except in a group because she was over sixty-five. We reminded her that publicity about the "over sixty-five policies" had been on radio and television for weeks. She knew about this, but was told that that was only for groups. It is unfortunate that some insurance agents misrepresent so effectively the Blue Cross-Blue Shield programs.

NEW REGISTRATION LAW CONTROLS PSYCHOLOGISTS

Climaxing four years of joint study between the Michigan psychiatrists and psychologists, a law was enacted this year setting up certification of the latter by the office of the Superintendent of Public Instruction.

Significant victory for the psychiatrists in the bill as finally passed, is inclusion of an exact definition of both the practitioner of and the practice of psychology, as well as inclusion of a specific prohibition of the practice of medicine and psychotherapy by those certified under the new act.

Bills introduced in previous years, and in fact this year's measure in its original form, have been opposed by the Michigan Society of Neurology and Psychiatry, which opposed establishment of a new autonomous board and further objected to the vagueness of the language in respect to defining the practice of psychology.

These were corrected in the bill as passed.

NINETEEN FIFTY-NINE

This is the last number of THE JOURNAL of the Michigan State Medical Society for the year 1959. It is total serial number 688. This year we have published the twelve regular issues, and two special sections, one containing the minutes of the 1958 Annual Session, in a compact readily usable bound form, and the other the Annual Directory. As in the past several years, each number has been devoted to some recognized function or interest of the Society. Several numbers have attracted special notice and compliments: the Beaumont number (May), Child Health (August), Geriatrics (September), and National Defense (October).

With this issue, we bid good-bye to 1959 and look forward to what next year will accomplish. We wish our membership and our readers a most happy holiday season, and the anticipation of ever more accomplishments in the new year.

"Tomorrow's Medicine Today"

That's the theme for the 1960 Michigan Clinical Institute, Detroit, March 8-11, 1960. Plan now to attend and receive much information of practical value in daily practice.

Plan Congress of the Professions, January

Michigan doctors will meet with members of other professions to take part in the first Congress of the Professions, January 22 and 23, 1960, in Detroit.

Dr. George W. Slagle, past president, MSMS, will be general chairman of the Congress. Honorary chairmen will include MSMS President Milton A. Darling and the presidents of the Michigan Society of Architects, Michigan State Dental Association, Michigan Society of Professional Engineers, and the State Bar of Michigan.

Representatives of the national professional societies involved will attend to speak before the Congress. In each instance, these groups are sending their president, president-elect or immediate past president. Nationally known speakers will highlight the programs. Governor G. Mennen Williams and Chief Justice John R. Dethmers will take prominent parts in the Congress.

In hearings which will be held the day prior to the actual Congress, deans of the various professional schools will testify, together with leaders in professional fields and lay persons with special knowledge in fields related to the professions.

The Congress, first meeting of its kind in the nation, is the annual meeting of the Michigan Association of the Professions—or MAP as it is commonly known. Incorporated December 1, 1958, MAP has enrolled more than 2,000 charter members during its initial year. All charter members are eligible to participate in the Congress, and it is anticipated that more than 500 will do so.

Charter membership roles will remain open until December 31. Those engaged in the practice of medicine, dentistry, engineering, architecture and law are eligible for charter membership, providing they are first members in good standing in their individual professional state societies.

All events of the Congress will be held in the Sheraton-Cadillac Hotel.

What They Said About
THE 1959 ANNUAL SESSION

AARON B. LERNER, M.D., Yale University School of Medicine (guest essayist): "I want to thank you for the invitation to speak before your medical society. It gave me a chance to see many old friends."

HOWARD P. ROME, M.D., Mayo Clinic (guest essayist): "May I say how much I enjoyed the opportunity to participate in the 1959 Annual Session. The hospitality of the Section on Nervous and Mental Diseases, the Michigan Neurological and Psychiatric Association, the Michigan District Branch of the American Psychiatric Association, and Doctor Ralph Fitts as my ubiquitous host, helped to make a delightful as well as a profitable experience for me."

HARVEY BLANK, M.D., University of Miami School of Medicine (guest essayist): "It was a great pleasure and an honor to participate in your program. I enjoyed very much meeting with the Michigan group."

ROBERT L. FAULKNER, M.D., Cleveland (guest essayist): "It was a pleasure to appear on your program."

R. A. LITTLE, Jackson (Secretary of Michigan Society of Professional Engineers): "Attending the MSMS annual session was certainly a gratifying and enlightening experience. I want to thank you for giving me the opportunity to meet and become acquainted with so many of your officers and delegates."

JAMES A. FERGUSON, M.D., and **WILLIAM FULLER, M.D.**, Grand Rapids: "We had the great pleasure of entertaining six medical students from the University of Michigan and six from the University of Wayne Medical School during the Annual Session on behalf of the Michigan State Medical Society. Thank you for a very pleasant experience."

H. CLOSE HESSELTINE, M.D., president-elect, Illinois State Medical Society, and Mrs. Hesseltine: "We wish to express our sincere thanks for your most cordial hospitality during the Annual Session at Grand Rapids."

JOSEPH T. O'NEILL, M.D., Ottawa, Illinois (President, Illinois State Medical Society): "I wish to thank the officers and members of the Michigan State Medical Society for the extreme courtesy and consideration which you showed both Mrs. O'Neill and me at Grand Rapids. My hope is that we will be able to extend to you folks the same courtesy when you visit our annual meeting in May—we shall try very hard to match you."

CYRIL B. COURVILLE, M.D., Institute of Nervous Diseases, Los Angeles (guest essayist): "If my small contributions to the Annual Session program were of any value to those present it will make me happy to have made the visit. I must say that I had a very enjoyable time and cannot imagine what more pleasure could have been furnished so graciously during the course of my stay by my assigned hosts."

AT RIGHT: Doctor Saltonstall is unable to suppress his enjoyment of the droll remarks made by newly-installed MSMS President Milton A. Darling, M.D., at the presidential induction ceremony during the Officers Night Dinner Dance.

HIGHLIGHTS of Annual Session

A total of 3,085 registrants crowded the meeting rooms and exhibit halls during the 1959 Annual Session at the Pantlind Hotel in Grand Rapids. This was a near-record attendance for those sessions held in the Furniture City.

Of the 1,516 doctors of medicine present, thirty-five were from out-of-state including two from California and three from Florida.

The general practitioners led the list of M.D. registrants with a total of 441, followed by the surgeons with 189 and internists with a total of 114. Interns and residents numbered 124.

STATISTICS

M. D. registration according to special group was:

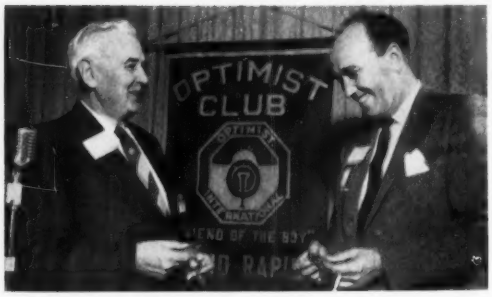
46—Anesthesiology
37—Dermatology-Syphilology
21—Gastroenterology-Proctology
441—General Practice
114—Medicine
54—Nervous & Mental Diseases
96—Obstetrics & Gynecology
53—Ophthalmology-Otolaryngology
55—Pathology
57—Pediatrics
33—Public Health
49—Radiology
189—Surgery
24—Urology
21—Occupational Health
71—Specialty not listed
124—Interns and Residents

Cities with the highest M.D. representation are:

329—Grand Rapids
226—Detroit
83—Flint
75—Lansing
65—Kalamazoo
54—Muskegon

AT LEFT: Wm. A. Hyland, M.D., Grand Rapids; Auxiliary President Mrs. Robert Reagan, Benton Harbor; and G. B. Saltonstall, M.D., Charlevoix, look over the model of the new MSMS headquarters which was displayed in the Pantlind Hotel lobby.

ABOVE: Eleven past presidents of MSMS gathered for their annual luncheon during the Annual Session. Standing (l. to r.) are H. R. Carstens, M.D., Birmingham; W. S. Jones, M.D., Menominee; O. O. Beck, M.D., Birmingham; R. J. Hubbell, M.D., Traverse City; G. B. Saltonstall, M.D., Charlevoix; and G. W. Slagle, M.D., Battle Creek. Seated are W. A. Hyland, M.D., Grand Rapids; Wilfrid Haughey, M.D., Battle Creek; C. E. Umphrey, M.D., Detroit; Arch Walls, M.D., Detroit; and L. J. Hirschman, M.D., Traverse City.



ABOVE: Optimist Club speaker was James D. Fryfogle, M.D., of Detroit. He addressed the members on the advances in heart surgery. Harry Lieffers, M.D., of Grand Rapids, served as host to Dr. Fryfogle.

ABOVE: W. M. LeFevre, M.D., Muskegon, who spoke to the Grand Rapids Kiwanis Club, was introduced by Rev. Charles Scheid.

Doctors were in the news during the Annual Session. Greater than usual interest in the activities of the MSMS Annual Session was displayed by the Michigan press, radio and TV.

During the House of Delegates meeting, reporters did a comprehensive job of accurately covering the session, thanks to the efforts of the House of Delegates Press Committee. The members appeared on TV newscasts and discussed House actions in press conferences immediately following each day's meeting. Committee members were K. H. Johnson, M.D., Lansing, chairman; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; D. W. Thorup, M.D., Benton Harbor; and D. Bruce Wiley, M.D., Utica.

Because the House of Delegates went into extra session, the Public Relations staff operated two Press Rooms simultaneously, one in the Pantlind Hotel for House activities and one in the Civic Auditorium near the scientific meetings.

Howard G. Benjamin, M.D., of Grand Rapids, was the Scientific Press Committee chairman. He devoted nearly a full four days to press room tasks, sharing duties with other veteran committee members: F. S. Alfenito, Jr., M.D., and N. L. Avery, M.D., both of Grand Rapids; A. B. Gwinn, M.D., Hastings; P. W. Kniskern, M.D., of Grand Rapids; and C. L. Weston, M.D., of Owosso.

ABOVE: Humorist Carl C. Byers, of New York, regaled the guests at the Officers Night Dinner Dance. Reflecting the audience's pleasure are Dr. and Mrs. Saltonstall.

BELOW: The past, present and future presidents of the Michigan State Medical Assistants Society posed for an informal portrait following the Annual Banquet of the Society. Left to right are 1959-60 president Mrs. Reta Stahl, Albion; president-elect Mrs. Betty Lou Willey, Port Huron; and retiring president, Miss Donna Hislop, Muskegon

ABOVE: Daily TV interviews were arranged by the press committee and PR staff over WOOD-TV. Shown during an interview is MSMS president G. B. Saltonstall, M.D., Charlevoix, being questioned by C. Allen Payne, M.D., Grand Rapids, member of the press committee.

AT RIGHT: The House of Delegates formally recognized 23 long-time practitioners and presented each with a Fifty Year Pin. Pictured here standing left to right are: C. S. Clarke, M.D., Jackson; E. V. Joinville, M.D., Detroit; R. W. Ridge, M.D., Wyandotte; Walter L. Finton, M.D., Jackson; and J. T. Sample, M.D., Saginaw. Seated are: J. S. Lambie, M.D., Birmingham; Emma L. W. Sheppard, M.D., Fenton; and Ferdinand Cox, M.D., of Jackson. Not shown are Carleton Harkness, M.D., Owosso, whose award was presented posthumously; Raymond C. Andries, M.D., Grosse Pointe; Samuel A. Butler, M.D., Pontiac; Henry Cook, M.D., Flint; Edward Dowdle, M.D., Detroit; Heman E. Grant, M.D., Lewiston; Frank A. Grawn, M.D., Ypsilanti; R. W. Hodges, M.D., Mackinaw City; John D. McKinnon, M.D., Highland Park; Plinn F. Morse, M.D., Detroit; Charles A. Neafie, M.D., Pontiac; Edward J. O'Brien, M.D., Detroit (died in October, 1959); Perry C. Robertson, M.D., Ionia; Alexander M. Stirling, M.D., Detroit; and Charles L. Washburne, M.D., Ann Arbor.

Members of The Council, 1959-60

Seated (left to right): Kenneth H. Johnson, M.D., Lansing; Milton A. Darling, M.D., Detroit; Arthur E. Schiller, M.D., Detroit; T. P. Wickliffe, M.D., Calumet; D. Bruce Wiley, M.D., Utica; William A. Hyland, M.D., Grand Rapids.

Middle Row (left to right): James J. Lightbody, M.D., Detroit; Wilfrid Haughey, M.D., Battle Creek; Gilbert B. Saltonstall, M.D., Charlevoix; C. N. Hoyt, M.D., Port Huron; Warren W. Babcock, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; Oliver B. McGillicuddy, M.D., Lansing; B. T. Montgomery, M.D., Sault Ste. Marie; William M. LeFevre, M.D., Muskegon.

Top Row (left to right): Robert J. Mason, M.D., Birmingham; Orlen J. Johnson, M.D., Bay City; G. Thomas McKean, M.D., Detroit; E. S. Oldham, M.D., Breckenridge; H. J. Meier, M.D., Coldwater; William Bromme, M.D., Detroit; Harold H. Hiscock, M.D., Flint; Bradley M. Harris, M.D., Ypsilanti.

Absent on Society Business: H. F. Falls, M.D., Ann Arbor; D. G. Pike, M.D.; Traverse City; W. A. Scott, M.D., Kalamazoo.

Annual Session Highlights

Eighty-seven items were presented to and discussed by the twenty-five members of The Council (eighteen Councilors, and the elected officers) at the two meetings held immediately before and during the MSMS Annual Session. The first meeting was held in East Lansing prior to the cornerstone laying of the new MSMS building; the second meeting was held the Friday morning of the Annual Session in Grand Rapids. The following matters and certain problems facing the medical profession of Michigan were discussed:

- **Reorganization of The Council:** A. E. Schiller, M.D., Detroit, was re-elected as Chairman.

  T. P. Wickliffe, M.D., Calumet, was re-elected as Vice Chairman.

  W. M. LeFevre, M.D., Muskegon, was selected to succeed himself as Chairman of the County Societies Committee.

  B. M. Harris, M.D., Ypsilanti, again was chosen for the post of Chairman of the Publication Committee.

  O. B. McGillicuddy, M.D., Lansing, was selected as head of the Finance Committee.

  The monthly financial reports were studied and approved as well as bills payable which were ordered paid.

- **New MSMS Headquarters Building.** Progress reports were presented by W. S. Jones, M.D., of Menominee, Chairman of the Big Look Committee, and by K. H. Johnson, M.D., Lansing, Speaker of the House of Delegates: The basic concrete structure is finished, except for minor items such as stairs. The shoring is being left in to get design strength (takes from seven to twenty-eight days). The site work including the driveway in front of the building is finished and the grading is almost completed. Next on schedule is the erection of the pre-cast columns and thirty-two vaults (roof).

  Plan of furnishings will be presented by M. Yamasaki & Associates to the Committee on Big Look on October 18. Also presented was a report on progress of the sale of the MSMS property at 606 Townsend Street.

Financing of the new building was discussed by Treasurer W. A. Hyland, M.D., who, upon request of The Council, had established a line of credit with a Michigan banking institution to obtain necessary money at a very favorable rate of interest, so that the building could be paid for upon completion, with the loan liquidated from future dues allocated for this purpose; the treasurer recommended that securities to cover the immediate cost of the new building be cashed. The report was approved. Actual payments to contractors, architect, etc., to September 27 have totaled $100,543.46. A report along similar lines is to be presented by Doctor Jones to the House of Delegates.

Suggestions for inscription on plaque and donor tablets were presented by W. W. Babcock, M.D., and Wm. Bromme, M.D.

- **Councilor Conferences.** Reports from individual Councilors on their Councilor Conferences held during the past summer were received with appreciation.
- **The question of establishing an editorial board** was discussed and referred to the Publication Committee of The Council for report.
- **Appointments:** Robert E. Anderson, M.D., Flint, to Public Relations Committee; Auther C. Rutzen, M.D., Detroit, to Maternal Health Committee; A. C. Curtis, M.D., Ann Arbor, as Chairman of Venereal Disease Control Committee; Wm. Bromme, M.D., and C. I. Owen, M.D., both of Detroit and A. A. Humphrey, M.D., Battle Creek, nominated for Medical Advisory Committee to Selective Service; A. Hazen Price, M.D., Detroit, and F. C. Swartz, M.D., Lansing, as MSMS representatives to Advisory Committee to State Commission on Aging; M. L. Lichter, M.D., Melvindale, to cover November AMA Civil Defense Conference in Chicago.
- **Use of Wayne County General Hospital (Eloise) Clinical Material:** report on September 6 meeting to achieve this desired result was presented by Milton A. Darling, M.D., President; a plan will be worked out so that both medical schools can use this facility for teaching purposes.
- **Nominations for the State Board of Registration in Medicine** to fill vacancies, occurring as of September 30, 1959 were submitted to the Michigan Secretary of State, with copy to the Governor in accordance with Michigan Law.
- **The dates for the 1964, and 1965** (Centennial) **Annual Sessions** in Detroit were selected by The Council.
- **National Blue Shield Plans Commission representatives,** Donald H. Stubbs, M.D., Washington, D. C., President, Russell C. Carson, M.D., Ft. Lauderdale, a member, and John W. Castelluci, Chicago, Secretary, were present upon invitation to discuss various questions concerning Michigan Medical Service and Blue Shield plans in general.
- **Report from Harry A. Towsley, M.D.,** Ann Arbor, on Hospital Survey and Construction meeting of August 6, 1959, was presented and discussed. Action of The Council was "that on questions of hospital construction, the recommendations of the Joint Committee on Accreditation be endorsed."
- **The Governor was congratulated** on his reappointment of A. E. Heustis, M.D., as Michigan's Health Commissioner, and a letter expressing this commendation was authorized.
- **A letter from the AMA Council on Medical Service** commending F. C. Swartz, M.D., Lansing, for his splendid work in connection with care of the aging, was read, and the congratulations of MSMS to Doctor Swartz were added in the motion of approval.
- **A. A. Claytor, M.D.,** Saginaw, Michigan's Foremost Family Physician for 1959, was nominated to the American Medical Association for its general practitioner award.
- **Thanks were extended** to all who participated in making successful the 1959 MSMS Annual Session in Grand Rapids, and to all those who assisted at the MSMS exhibits at the State fair and county fairs throughout Michigan.
- **Committee reports included:** (1) Relative Value Study Committee, meeting of August 6, including additional appropriation, which report as presented by Chairman Luther R. Leader, M.D., Detroit, was approved by The Council; (2) Public Relations Committee, meeting of August 27; (3) Committee on Alcoholism, September 9; (4) Wayne District CDMCIC Committee, August 20; (5) CDMCI Committee, Eleventh District, May 28; (6) CDMCI Committee, Tenth District, May 13; (7) Michigan Cancer Coordinating Committee, September 24; (8) North Central District Bank Clearing House, June 12.

  Two other committee reports were presented: (1) Special report of Bureau of Hospital Administration, University of Michigan, by Director W. J. McNerney, Ann Arbor, which report was referred to the MSMS Relative Value Study Committee; (2) Special Committee on Furnishing New Building which was referred to the Big Look Committee.

- **Council Meetings** during the ensuing twelve months, The Council decided, will be held monthly, with 50 per cent of The Council to be a quorum; if no quorum of The Council is present, a quorum of the Executive Committee of The Council will constitute a quorum for these monthly meetings. Referred to Legal Counsel was request that he clarify MSMS Bylaws, Chapter 10, Section 1 re time of electing officers of The Council, for reference to the House of Delegates Committee on Constitution and Bylaws as The Council's recommendation.
- **New members of The Council** introduced at the October 2 meeting were: Harold F. Falls, M.D., Ann Arbor, Vice Speaker of the House of Delegates; Robert J. Mason, M.D., Birmingham, Councilor of the Fifteenth District; and Wm. A. Scott, M.D., Kalamazoo, Councilor of the Fourth District.
- **The Council took official recognition** of the work of the retiring officers and Councilors and placed upon its minutes a vote of thanks for their contributions to MSMS and to Medicine generally.
- **The time for the second meeting** of the September Session of The Council in future was changed from Friday morning to Thursday morning.
- **A committee of The Council was appointed** to work with Public Relations Counsel to make recommendations on methods of installing MSMS officers, in future.

Daytime TV looked in on an expert discussion of problems of adolescent and teenage children during the Annual Session. In co-operation with WOOD-TV, a half-hour program was presented on Thursday morning. Seated right is Press Committee chairman Howard G. Benjamin, M.D., Grand Rapids. Seated from left to right are J. G. Young, M.D., of Dallas; J. A. Rose, M.D., of Philadelphia; and H. P. Rome, M.D., of Rochester, Minnesota. The medical authorities appeared on the Thursday Annual Session scientific program. Standing are the moderators of the TV program.

Third Trimester Hemorrhage

Of the 632 maternal deaths in the state of Michigan during the years 1950-1954, 443 were due to obstetric causes. Of the *443* women, *twenty-six* died from hemorrhage in the third trimester.

There are many conditions which are responsible for hemorrhage during this period of gestation, but in this five-year period only two were severe enough to cause death. These are placenta previa and abruptio placenta.

The reasons for these deaths were not mysterious or vague, but as you will see, reactiveness to known facts either by the physician in charge of the patient, the patient herself, the hospital in which she was placed or a combination of these factors.

Of the *twenty-six* cases there were *two* which have been classified as unpreventable. Both of these cases were deaths due to abruptio placenta, one of which was complicated by a severe toxemia and the other by uncontrollable afibrinogenemia following Caeserean section.

Thus there were *ten* cases of placenta previa and *fourteen* cases of abruptio placenta whose tragic end might have been avoided. The Michigan State Maternal Mortality Evaluation Committees, after a careful and thorough review of each individual case, has assigned as the cause of death in the cases of *placenta previa* the following:

1. The patient was moribund on admission to the hospital where she arrived without notification of her physician
2. The injudicious use of pituitrin, forcible dilatation of the cervix, version and extraction and failure to replace lost blood or call a consultant
3. Nine hours of profuse bleeding with an undilated cervix followed by a version and extraction
4. No prenatal care and no blood available
5. Bleeding between two and three weeks prior to hospitalization, inadequate prenatal care and hospital facilities
6. Version and extraction through a partially dilated cervix
7. Home delivery, under-estimation of blood loss and inadequate blood replacement following hospitalization
8. Version and extraction (uterus not explored following delivery)
9. Inadequate blood replacement
10. No prenatal care and inadequate blood replacement

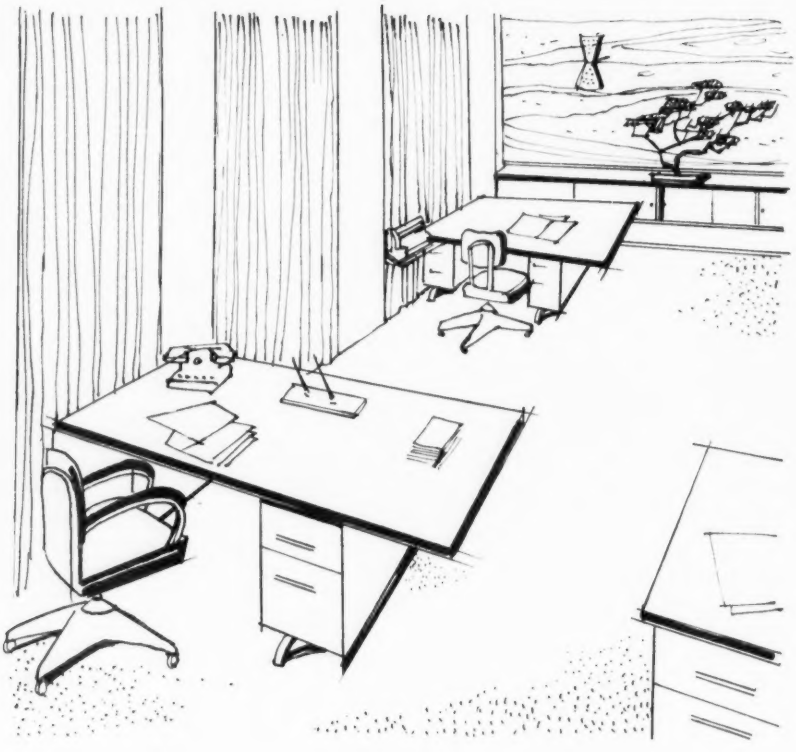
In the *abruptio placenta* cases, the following causes are listed:

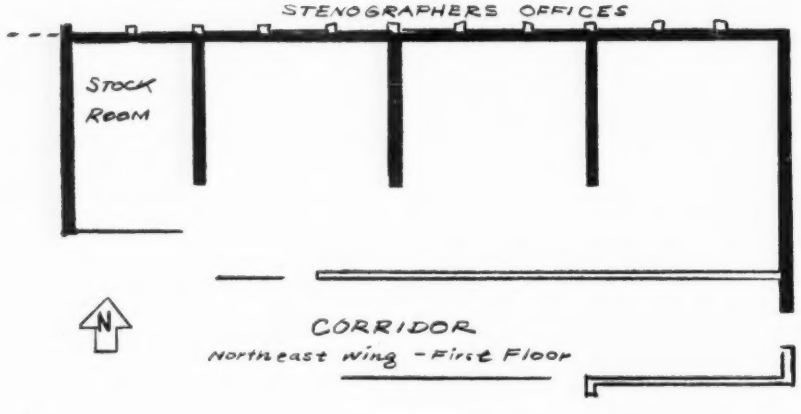
1. Manual dilatation of the cervix when 6 to 7 cm. dilated, three attempts at a high forceps delivery followed by a version and extraction
2. No prenatal care—D.O.A.
3. Delay in performing Cesarean section
4. Inadequate blood replacement following a forceps delivery on a toxic, anemic patient who had omitted prenatal care for three months
5. Inadequate blood replacement following a Cesarean section (complicated by toxemia)
6. Abruptio placenta discovered at autopsy on a patient dying of toxemia during home management
7. Inadequate blood replacement following Cesarean section
8. No prenatal care, blood started after collapse following Cesarean section with a known hemoglobin of 44 per cent
9. No prenatal care, shock occurred during admission examination
10. Admitted in shock and treated with pitocin and Trendelenburg position for eighteen hours before blood was started
11. Excessive hydration and pulmonary edema following Cesarean section
12. Blood too little too late following I.V. pitocin and forceps delivery
13. Ill-advised use of pitocin followed by Cesarean section and afibrinogenemia
14. Ill-advised use of pitocin followed by Durrhsians incision and a mid forceps delivery

There have been statements recorded by well-known authorities that we are reaching or have reached an irreducible minimum as far as maternal mortality is concerned. Do you agree?

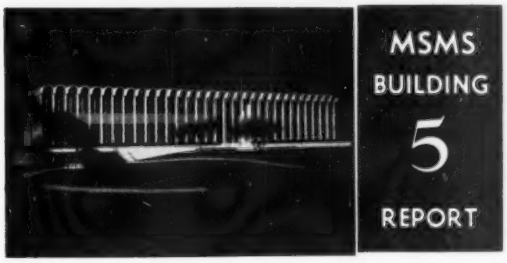
In conclusion, we would like to say that we are proud for many reasons of belonging to the medical profession as it exists in Michigan today. Foremost of these reasons being that our profession stands alone from all other groups and professions by willingly *asking* its members to review and constructively criticize the actions of its individual members and the profession as a whole.

looking AHEAD . . .





MSMS Stenographer —Hidden Purveyor



Another Monthly Building Report by the MSMS Committee on Big Look

The oft-forgotten person in any office or organization is the secretary or stenographer. To her falls the task of transforming instruction into action. This is not to detract from the employer who makes the decisions, but a general does need some soldiers.

In the Michigan State Medical Society, the soldiers are a dedicated staff of office workers who work behind the scenes, armed with pen and typewriter.

It's probably no news to you, but a usual MSMS committee meeting requires about 20-man hours of staff work between the initial planning and the final mimeographing of minutes. Of course, the scientific meeting such as the Annual Session entails more like 5,000 man-hours of labor.

This brief introduction leads up this month to a brief preview of the secretarial area in the new MSMS headquarters.

On the opposite page is a reproduction of the floor plan of the northeast quarter of the new building. There several stenographers will perform the daily tasks necessary in the operation of the 6,700-member Michigan State Medical Society.

The new work areas are designed for maximum efficiency and partitions will protect the girls from distractions of the adjoining area. The noise level will be held to a minimum through use of sound-absorbing floor covering.

Dangerous extension and telephone cords will not be lying about, since the location of each desk has been planned in advance with floor plugs for phone and typewriter planted in the floor directly beneath each space.

When needed, the area will be able to accommodate up to twelve stenographers with similar efficiency.

Equipment for the new room—desks, chairs, files and typewriters—will be transferred from 606 Townsend.

The new stenographic room will feature other improvements as it continues to serve as a vital workshop of MSMS.

Michigan MD Split Averted By Shield Plan Agreement

An open and bitter split among Michigan physicians over a Blue Shield plan regarded by many as "too liberal" was averted here by a compromise worked out at the annual meeting of the Michigan State Medical Society.

The accord was reached by reducing the income ceiling for service coverage under Michigan Medical Service's M-75 policies from $7,500 to $6,500, and using as a yardstick for such policies the total family income, rather than individual subscriber income. The new provisos are to go into effect "as soon as feasible."

Before the agreement was worked out, the division among Michigan doctors shaped up largely as Wayne County (Detroit) against the rest of the state. Before the meeting began, Wayne County delegates were pledged to work for a $5,000 service-policy limit. In fact they had, for the most part, been elected over a slate of former delegates because of their support of an anti-M-75 platform.

Heated Debate

The compromise came after heated debate in caucus, in reference committee and on the floor of the House of Delegates. All factions gave major credit for the settlement to two men: Dr. Donald N. Sweeny of Detroit, who brought together the warring parties in reference committee, and Dr. Kenneth H. Johnson of Lansing. Dr. Johnson, Speaker of the House and President-elect of the State Society, guided the measure through the House's special session.

Looming large in the background of the debate here was Michigan's labor giant, the United Auto Workers. The union is generally credited with having "inspired" formulation of the M-75 policy two years ago by threatening to emulate the United Mine Workers and set up its own "medical business" unless the Blue plans made major concessions.

Both sides left the parleys feeling they could claim victory—opponents of M-75 because service-policy ceilings were revised downward; defenders because the cut was less drastic than had been demanded, and another controversial provision had been left largely intact.

Only Slightly Altered

This is the clause distinguishing between participating and nonparticipating physicians by permitting the latter to be paid directly only if their medical service reports are accompanied by assignment-of-payment statements from the patient or subscriber. Otherwise, payments are made to the subscriber. The House of Delegates voted to alter this provision only to the extent of having assignment forms printed right on the medical service reports.

Blue Shield's reaction to the decisions taken here was expressed by Dr. G. Thomas McKean of Detroit, president of Michigan Medical Service. His interpretation of "as soon as feasible," he said, was that his organization would be given the necessary time and latitude to revise its present program.

In the meantime, he added, M-75 contracts would continue to be sold and commitments under those contracts would be fully met. A major reason for continued sale of M-75s, observers noted, was the hope that this would stem the tide of losses for Michigan Blue Shield—almost $3 million last year.—*Medical News*, October 14, 1959.

THE DYNAMICS OF GERIATRICS

(Continued from Page 2025)

14. Kaplan, Jerome: Effect of group activity on psychogenic manifestations of older people. Geriatrics, 9:537-539 (Nov.) 1954.
15. Keys, Ancel: Aging and health of men in America. Geriatrics, 8:620-621 (Nov.) 1953.
16. Landau, Gertrude: Restoration of self-esteem. Geriatrics, 10:141-143 (March) 1955.
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18. McIntire, Ross T.: American needs the older handicapped worker. J. Am. Geriatrics Soc., 2:203-209 (Apr.) 1954.
19. Pressy, S. L., et al: Church programs for older people in a mid-west city. Newsletter, Gerontol. Soc., 3:5 (June) 1956.
20. Ross, C. Howard: Geriatrics and the aging personality. J. Michigan M. Soc., 54:545-549 (May) 1955.
21. Ross, C. Howard: Geriatric exercise. J. Michigan M. Soc., 55:1222-1227 (Oct.) 1956.
22. Ross, C. Howard: Geriatric rehabilitation. J. Am. Geriatrics Soc., 5:271 (March) 1957.
23. Ross, C. Howard: Geriatric rehabilitation. J. Michigan M. Soc., 56:1000 (Aug.) 1957.
24. Ross, C. Howard, and Fox, Winslow G.: Revolutions in Medicine. Ann Arbor Publishers, 1957.
25. Rusk, H. A.: Total rehabilitation. J. Nat. M. A., 45:1. 1953.
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28. Thewlis, Malford W.: Overtreatment in the aged. J. Am. Geriatrics Soc., 2:650-654 (Oct.) 1954.
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Michigan Clinical Institute

Refresher Course

Sheraton-Cadillac Hotel, Detroit

TUESDAY-WEDNESDAY-THURSDAY-FRIDAY, MARCH 8-9-10-11, 1960

R. J. Hubbell, M.D., Suttons Bay,
General Chairman

Every member of the Michigan State Medical Society is invited—urged—to attend the 1960 Michigan Clinical Institute. Once again, it will be held in Detroit at the Sheraton-Cadillac Hotel.

This excellent refresher course will begin Tuesday noon, March 8, and end Friday noon, March 11.

The total program has been planned to help the practicing physician in his daily work.

Information

- **THEME**—"Tomorrow's Medicine Today"
- **HEADQUARTERS**—Sheraton-Cadillac Hotel, Detroit; Assemblies and Exhibits on Fourth Floor; Press Room on Fifth Floor (Suite 500).
- **REGISTER**—Fourth Floor—as soon as you arrive. Hours: Tuesday, March 8—10:00 a.m. to 5:15 p.m.
  Wednesday, March 9—8:30 a.m. to 5:15 p.m.
  Thursday, March 10—8:00 a.m. to 5:15 p.m.
  Friday, March 11—8:30 a.m. to 1:00 p.m.
- **NO REGISTRATION FEE** for Members of MSMS and other State Medical Associations, AMA, and Canadian Medical Association.
- **ADMISSION BY BADGE ONLY** to all Assemblies and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA Membership Card to expedite registration.
- **GUESTS**—Members of any state medical association, AMA, or CMA members from any province of Canada, and physicians of the Army, Navy, and U. S. Public Health Service are invited to attend as guests. No registration fee. Please present credentials at the registration desk.

  Bona fide doctors of medicine who are associate or probationary members of Michigan county medical societies or who are serving as residents or interns, if vouched for by the president or secretary of the county medical society in whose jurisdiction they are located, will be registered as guests with no registration fee. Please present credentials at the registration desk.
- **MICHIGAN DOCTORS OF MEDICINE** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them toward dues in the Michigan State Medical Society for 1960 *only*, provided they subsequently are voted into membership by the county medical society in whose jurisdiction they practice.
- **TELEPHONE SERVICE**—Local and long distance telephone service will be available in the Sheraton-Cadillac Hotel, fourth floor. In case of emergency, physicians will be paged from the meetings by an announcement on the screen. Call the Sheraton-Cadillac Hotel, Detroit, WOodward 1-8000, and ask for the Michigan Clinical Institute extensions on the fourth floor.

(Continued on Page 2052)

COLOR TV PROGRAM

beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia.

Wednesday-Thursday-Friday, March 9-10-11, from 10:30 a.m. to 12:30 p.m. (See Pages 2056, 2058 and 2060, for complete program.)

R. J. Hubbell, M.D.

• **R. J. HUBBELL, M.D.,** Suttons Bay, is General Chairman of Arrangements for the 1960 Michigan Clinical Institute.

Wm. S. Reveno, M.D.

• **WM. S. REVENO, M.D.,** Detroit, is Chairman of the Program and Television Committees.

Information (Continued)

• **CHECKROOM** is available in the Sheraton-Cadillac Hotel, fourth floor, next to the Grand Ballroom.

• **GUEST SPEAKERS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Committee on Program. This request is made in order to avoid confusion as well as disappointment on the part of members of the audience.

• **PAPERS WILL BEGIN AND END ON TIME**—Nothing makes a scientific meeting more attractive than by-the-clock promptness and regularity; therefore, all meetings and symposia will open on time, all speakers will be required to begin their talks exactly on time and to close exactly on time, in accordance with the schedule in the program. All who attend the Institute are respectfully requested to assist in attaining this end by noting the schedule carefully and by being in attendance accordingly, in order not to miss that portion of the program of greatest interest.

• **TECHNICAL EXHIBITS**—Seventy-five interesting and instructive displays will open on Tuesday, March 8, at 1:00 p.m., and on Wednesday-Thursday-Friday, March 9-10-11, at 9:30 a.m. The exhibits will close daily at 5:15 p.m., except on Friday when the show closes at 1:00 p.m. Frequent intermissions to view the exhibits have been arranged daily before, during, and after the assemblies.

• **THERE IS SOMETHING** of interest or education in the large exhibit of technical displays. **SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN CLINICAL INSTITUTE.**

• **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Michigan Clinical Institute. Notify J. M. Sheldon, M.D., Chairman, MSMS Committee on Postgraduate Medical Education, 1313 E. Ann Street, Ann Arbor, Michigan.

• **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel is available at the DAC Garage, 1754 Randolph, the Grand Circus Garage, 1776 Randolph, and the Book Tower Garage, 333 State.

• **PRESS RELATIONS COMMITTEE** for the 1960 Michigan Clinical Institute: A. B. Gwinn, M.D., Hastings, Chairman; H. F. Dibble, M.D., Detroit; M. R. Weed, M.D., Detroit; C. L. Weston, M.D., Owosso.

• **INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE** will be found at the Michigan Clinical Institute. All subjects on the Institute Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

MUCH THAT IS NEW AND INTERESTING WILL BE FOUND IN THE MCI EXHIBIT

THE "BLOCK SYSTEM"
at the
1960 MICHIGAN CLINICAL INSTITUTE

Cancer Control	Tuesday afternoon,	March 8
General Practice Day—Surgery	Wednesday morning,	March 9
General Practice Day—Trauma	Wednesday afternoon,	March 9
Adolescents in Society	Wednesday evening,	March 9
Heart and Rheumatic Fever	Thursday morning,	March 10
Internal Medicine	Thursday afternoon,	March 10
Obstetrics-Gynecology	Friday morning,	March 11

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H. M. FULLER, M.D., Detroit
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Representing Michigan Foundation for Medical and Health Education

E. I. CARR, M.D., Lansing

Representing Michigan Heart Association

D. S. SMITH, M.D., Pontiac

Representing American College of Surgeons, Regional Committee on Trauma

H. M. SMATHERS, M.D., Detroit

Representing Michigan Cancer Co-ordinating Committee

H. M. NELSON, M.D., Detroit

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HOTEL RESERVATIONS

MICHIGAN CLINICAL INSTITUTE
Detroit, March 8-9-10-11, 1960

The reservation blank below is for your convenience in making your hotel reservation in Detroit. Please send your application to B. Van De Keere, Executive Offices, Sheraton-Cadillac Hotel, Detroit 31, Michigan. Mailing your application now will be of material assistance in securing the type of hotel accommodations you desire.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

Committee on Hotels
Michigan Clinical Institute
c/o Sheraton-Cadillac Hotel
Detroit 31, Michigan
Attention: B. Van De Keere
Please make hotel reservation(s) as indicated below:

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin-bedded Room(s) for.....persons

Arriving March.....hour.....A.M.....P.M.....

Leaving March.....hour.....A.M.....P.M.....

Hotel of First Choice:.....

Second Choice:.....

Names and addresses of all applicants including person making reservations:

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Name

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Address

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City Zone State

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Name

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Address

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City Zone State

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Name

.....
Address

.....
City Zone State

Date..... Signature.....

Address..... City.....

Michigan Clinical Institute, 1960

MCI SPEAKERS

Stuart M. Sessoms, M.D.

Erwin P. Vollmer, Ph.D.

Michael J. Brennan, M.D.

E. J. Hill, M.D.

J. B. Bloggett, M.D.

Program

TUESDAY, MARCH 8, 1960

10:00 a.m. **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

1:00 p.m. **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

FIRST ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. M. Nelson, M.D., Detroit
Secretary: J. M. Sheldon, M.D., Ann Arbor

P.M.
1:35 **WELCOME**

Milton A. Darling, M.D., Detroit
President, Michigan State Medical Society

Milton R. Weed, M.D., Detroit
President, Wayne County Medical Society

CANCER CONTROL

1:45 **Panel on "CHEMOTHERAPY OF CANCER"**

Moderator:
Stuart M. Sessoms, M.D., Bethesda, Maryland
Chief, Cancer Chemotherapy, National Service Center, Department of Health, Education and Welfare

Participants:
Michael J. Brennan, M.D., Detroit, Michigan
Physician in Charge, Oncology Division, Henry Ford Hospital

Erwin P. Vollmer, Ph.D., Bethesda, Maryland
Consultant in Endocrinology, Cancer Chemotherapy, National Service Center, Department of Health, Education and Welfare

Robert W. Talley, M.D., Detroit, Michigan
Associate Physician, Oncology Division, Henry Ford Hospital

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 **Symposium on "STEROIDS"**

Moderator:
Charles H. Slocumb, M.D., Rochester, Minnesota

Participants:
Robert B. Leach, M.D., Detroit, Michigan

(Other participants to be announced)

5:00 **End of First Assembly**

MCI SPEAKERS

WEDNESDAY, MARCH 9, 1960

A.M.

8:30 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

SECOND ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: S. A. FIEGEL, M.D., Sturgis

Secretary: L. F. HAYES, M.D., Gaylord

GENERAL PRACTICE DAY—SURGERY

9:00 **"Recent Advances in Treatment of Intestinal Obstruction"**
WALTER G. MADDOCK, M.D., Chicago

9:30 **(Speaker to be announced)**

10:00 **INTERMISSION TO VIEW EXHIBITS**

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 **"Surgery of the Skin and Subcutaneous Tissues"**
EDWARD J. HILL, M.D., Detroit
Staff Member, Mt. Carmel Mercy, Harper and Wm. Beaumont Hospitals; Consultant, Veterans Administration, Wayne County General Hospital; Instructor in Surgery, Wayne State University College of Medicine

11:00 **Panel on "VARICOSE ULCERS"**
JAMES B. BLODGETT, M.D., Detroit
Chairman, Section of Cardiovascular Thoracic Surgery, Grace Hospital
BROCK E. BRUSH, M.D., Detroit
Associate Surgeon, Division of General Surgery, Henry Ford Hospital
EUGENE A. OSIUS, M.D., Detroit
Chief of Staff, Harper Hospital; Clinical Associate Professor of Surgery, Wayne State University College of Medicine

11:45 **Panel on "HOSPITAL CARE OF A SURGICAL WOUND"**
Moderator:
HOMER M. SMATHERS, M.D., Detroit
Senior Instructor in Surgery, Wayne State University College of Medicine
Participants:
NICHOLAS S. GIMBEL, M.D., Detroit
Associate Professor of Surgery, Wayne State University College of Medicine
ROBERT D. LARSEN, M.D., Detroit
Instructor in Surgery, Wayne State University College of Medicine

P.M.
12:30 **End of color television program**

Luncheon

B. E. BRUSH, M.D.

E. A. OSIUS, M.D.

H. M. SMATHERS, M.D.

N. S. GIMBEL, M.D.

ROBERT D. LARSEN, M.D.

W. H. STEFFENSEN, M.D.

MCI SPEAKERS

W. H. Moncrief, M.D.

J. M. Dorsey, M.D.

M. L. Falick, M.D.

W. J. Hendrickson, M.D.

H. H. Comly, M.D.

H. H. Sadler, M.D.

WEDNESDAY, MARCH 9, 1960
THIRD ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. M. Smathers, M.D., Detroit
Secretary: H. M. Fuller, M.D., Detroit

GENERAL PRACTICE DAY—TRAUMA

P.M.

1:45 **"Treatment of Traumatic Shock"**
Merle M. Musselman, M.D., Omaha, Nebraska
Professor and Chairman, Department of Surgery, University of Nebraska College of Medicine

2:15 **"Fractures in Children"**
Claude N. Lambert, M.D., Chicago, Illinois

2:45 **"The Hazards of Iatrogenic Pneumothorax in Certain Diagnostic and Therapeutic Procedures"**
Robert Antoni, M.D., Detroit

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 **"The Challenge of Facial Lacerations"**
Wallace H. Steffensen, M.D., Grand Rapids
Consultant in Plastic Surgery, Blodgett Memorial Hospital

4:30 **"Trauma and Whole Body Radiation"**
Lt. Col. Wm. H. Moncrief, Jr., M.C., Washington, D. C.
Director, Division of Surgery, Walter Reed Army Institute of Research, Walter Reed Army Medical Center

5:00 **End of Third Assembly**

WEDNESDAY EVENING, MARCH 9, 1960

Grand Ballroom, Sheraton-Cadillac Hotel

P.M.

8:00 **Symposium on "PROBLEMS OF JUVENILE DELINQUENCY"**

Chairman: John M. Dorsey, M.D., Detroit
Professor and Chairman, Department of Psychiatry, Wayne State University College of Medicine

MCI SPEAKERS

Principal Address by:

MORDECAI L. FALICK, M.D., Detroit

Assistant Professor in Department of Psychiatry, Wayne State University College of Medicine; Professorial Lecturer, Wayne State University School of Social Work; Lecturer, Psychoanalytic Training Center of Detroit

Panel Presentations:

"The Emotional Aspects"

WILLARD J. HENDRICKSON, M.D., Ann Arbor

Associate Professor of Psychiatry; Chief of Adolescent Service, University of Michigan

D. S. SMITH, M.D.

"The Behavioral Aspects"

HUNTER H. COMLY, M.D., Detroit

Child Psychiatrist in Pediatric Psychiatric Clinic, Department of Pediatrics, Wayne State University College of Medicine; Assistant Professor of Psychiatry, Wayne State University College of Medicine; Director, Children's Center of Metropolitan Detroit

"The Somatic Aspects"

H. HARRISON SADLER, M.D., Detroit

Associate Professor of Psychiatry, Wayne State University College of Medicine

C. B. SIMSON, M.D.

"The Emergency and Follow-up Care Aspects"

CLYDE B. SIMSON, M.D., Detroit

Head of the Children's Services, Lafayette Clinic; Associate Professor of Psychiatry, Wayne State University College of Medicine

* * *

General Discussion—including questions and observations from the audience

R. J. BING, M.D.

THURSDAY, MARCH 10, 1960

A.M.

8:00 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

B. M. BULLINGTON, M.D.

FOURTH ASSEMBLY

ELEVENTH ANNUAL MICHIGAN HEART DAY

Sponsored by the Michigan Heart Association
Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: BENJAMIN I. JOHNSTONE, M.D., Detroit
Secretary: SIDNEY E. CHAPIN, M.D., Dearborn

S. W. HOOBLER, M.D.

HEART AND RHEUMATIC FEVER

8:30 **Panel on "HYPERTENSION"**

Moderator:

DONALD S. SMITH, M.D., Pontiac
Internist Consultant, Oakland County Tuberculosis Sanatorium and Pontiac State Hospital

Y. MORITA, M.D.

MCI SPEAKERS

M. Clapper, M.D.

E. S. Gurdjian, M.D.

F. D. Dodrill, M.D.

W. S. Davies, M.D.

Bernard C. Wildgen, M.D.

D. Marshall, M.D.

Participants:

Richard J. Bing, M.D., Detroit
Professor of Medicine; Chairman, Department of Medicine, Wayne State University College of Medicine

Bert M. Bullington, M.D., Saginaw
Chief of Medicine, Saginaw General Hospital; Consultant in Medicine, Saginaw Veterans Administration Hospital

Sibley W. Hoobler, M.D., Ann Arbor
Professor of Internal Medicine, University of Michigan Medical School; Director of Hypertension Unit, University of Michigan

Yoshikazu Morita, M.D., Detroit
Assistant Professor of Medicine, Wayne State University College of Medicine

10:00 INTERMISSION TO VIEW EXHIBITS

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 Demonstration and Discussion of "THE PHYSICAL SIGNS OF CONGESTIVE HEART FAILURE"
Muir Clapper, M.D., Detroit
Professor of Medicine, Wayne State University College of Medicine

10:45 Demonstration of "THE DIAGNOSIS OF CAROTID ARTERIAL OCCLUSION"

E. Stephen Gurdjian, M.D., Detroit
Professor of Neurological Surgery, Wayne State University College of Medicine; Head of the Wayne State University Neuro-surgical Service, Grace and Detroit Memorial Hospitals

Warren G. Hardy, M.D., Detroit
Clinical Instructor in Neurosurgery, Wayne State University College of Medicine

David W. Lindner, M.D., Detroit
Clinical Instructor, Wayne State University College of Medicine

11:00 "Cardiac Arrest in the Operating Room"
Edward W. Crawford, M.D., Detroit, and
Forrest D. Dodrill, M.D., Detroit
Chief, Cardiac Research, Harper Hospital

11:30 "Glaucoma with Instruction in Tonometry"
Windsor S. Davies, M.D., Detroit
Professor of Clinical Ophthalmology, Wayne State University College of Medicine; Chief, Pathology Department, Kresge Eye Institute

12:00 Noon "Common Ocular Fundus Findings"
Bernard C. Wildgen, M.D., Muskegon, Michigan
Consultant in Ophthalmology, Hackley and Mercy Hospitals; Vice Chairman of Staff, Mercy Hospital; Diplomate, American Board of Ophthalmology

P.M. 12:15 "Common External Eye Diseases"
Don Marshall, M.D., Kalamazoo
Area Consultant to the Veterans Administration

P.M. 12:30 End of color television program

Luncheon

MCI SPEAKERS

THURSDAY, MARCH 10, 1960

FIFTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: W. D. ROBINSON, M.D., Ann Arbor
Secretary: PAUL IVKOVICH, M.D., Reed City

INTERNAL MEDICINE

P.M.

1:45 **"A New Look at Food Poisoning"**
WALTER MALMANN, PH.D., East Lansing
Professor of Microbiology and Public Health, Michigan State University

2:15 **"Evaluation of Drugs"**
HAROLD D. KAUTZ, M.D., Chicago, Illinois
Secretary, Council on Drugs, American Medical Association

2:45 **"Blood Component Therapy"**
WOLF W. ZUELZER, M.D., Detroit
Director of Laboratories, Children's Hospital; Director of Child Research Center; Medical Director, Southern Michigan Blood Center

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 **"Aerospace Medicine"**
GEORGE J. KIDERA, M.D., Chicago, Illinois
Medical Director, United Air Lines; President-Elect, Aerospace Medical Association

4:30 **Clinical Movie of "PATIENT WITH MULTIPLE PERSONALITY"; Discussion of the case; and, some questions pertaining to present methods of psychiatry and therapies**
CORBETT H. THIGPEN, M.D., Augusta, Georgia
Associate Clinical Professor of Psychiatry, Medical College of Georgia

5:00 **End of Fifth Assembly**

No Michigan Clinical Institute Meeting Thursday Evening

HAROLD D. KAUTZ, M.D.

W. W. ZUELZER, M.D.

GEORGE J. KIDERA, M.D.

C. H. THIGPEN, M.D.

EUGENE N. BEESLEY

F. J. HOFMEISTER, M.D.

FRIDAY, MARCH 11, 1960

A.M.

8:30 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

MCI SPEAKERS

J. R. MacDonald, M.D.

H. C. Mack, M.D.

C. P. Hodgkinson, M.D.

L. P. Heath, M.D.

H. Henderson, M.D.

M. R. Lazar, M.D.

SIXTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: C. S. Stevenson, M.D., Grosse Ile
Secretary: G. C. Wilson, M.D., Clinton

OBSTETRICS-GYNECOLOGY

9:00 **Pharmaceutical Lecture**
"Today's Challenge for Medicine"
Eugene N. Beesley, Indianapolis, Indiana
President, Eli Lilly and Company

9:30 **"Prolonged Labor"**
Frederick J. Hofmeister, M.D., Milwaukee, Wisconsin
Associate Clinical Professor of Obstetrics-Gynecology, Marquette University

10:00 **INTERMISSION TO VIEW EXHIBITS**

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 **"Early Detection of Cervical Carcinoma: Cytologic Techniques"**

John R. MacDonald, M.D., Detroit
Chief, Department of Pathology, Harper Hospital; Professor of Surgical Pathology, Wayne State University College of Medicine

Harold C. Mack, M.D., Detroit
Chief, Department of Obstetrics and Gynecology, Harper Hospital; Associate Clinical Professor of Obstetrics and Gynecology, Wayne State University College of Medicine

11:00 **Panel on "PROLAPSE UTERI"**
Moderator:
C. Paul Hodgkinson, M.D., Detroit
Chairman, Department of Gynecology and Obstetrics, Henry Ford Hospital; President, Michigan Society of Obstetricians and Gynecologists; President-Elect, American College of Obstetricians and Gynecologists

Participants:
Leonard P. Heath, M.D., Detroit
Diplomate, American Board of Obstetrics and Gynecology; Surgeon, Department of Obstetrics and Gynecology, Harper Hospital

Harold Henderson, M.D., Detroit

Morton R. Lazar, M.D., Detroit
Attending Surgeon, Dept. of Obstetrics and Gynecology, Harper Hospital; Attending Surgeon, Division of Obstetrics and Gynecology, Sinai Hospital; Senior Attending Surgeon, Division of Obstetrics and Gynecology, Crittenton General Hospital

MCI SPEAKERS

11:30 Panel on "CLINICAL ASPECTS OF AGING"

NATHAN W. SHOCK, PH.D., Baltimore, Maryland
Chief, Gerontology Branch, Baltimore City Hospital

JAMES E. BIRREN, PH.D., Bethesda, Maryland
Chief, Section on Aging, National Institute of Mental Health

FREDERICK C. SWARTZ, M.D., Lansing, Michigan
Chief, Committee on Aging, Council on Medical Service, American Medical Association

JOSEPH T. FREEMAN, M.D., Philadelphia, Pennsylvania
President-Elect, Gerontology Society; Clinical Assistant Professor of Medicine, Women's Medical College of Pennsylvania; Special Lecturer in Geriatrics, University of Pennsylvania Graduate School of Medicine

P.M.
12:30 End of color television program

FREDERICK C. SWARTZ, M.D.

JOSEPH T. FREEMAN, M.D.

12:30 FINAL INTERMISSION TO VIEW EXHIBITS

1:00 End of 1960 Michigan Clinical Institute

LEARNING TO LIVE IN THE COMMUNITY

(Continued from Page 2034)

futile effort to correct social problems, it would seem plausible that such research would far more than re-pay its financial costs through actual savings in public expenditures, even without giving consideration to the social and personality implications.

Summary

A vast amount of new theory and knowledge is developing on how people learn to perform expected ways of living as defined in the several thousands of different human cultures. Such knowledge is useful in developing a more adequate theory for educating mentally retarded or other handicapped persons to live in a society.

A community in any culture is composed of many social positions, such as baby, child, man, woman, physician, the sick person, or the friend. Any occupant of a social position is expected to learn the values and to perform the behavior expectations which the society assigns to the incumbent of the position. The performance expectations of a position are called social roles. Usually basic social roles in any society are patterned for such categories as age, sex, social class, and as in our society, occupation.

It would appear that mentally retarded persons may have difficulty in learning role meanings and in performing role expectations. A systematic use of existing knowledge as well as basic and applied research should facilitate better planning for the education of handicapped children, especially in teaching them role understanding and role performance.

Michigan's Department of Health

Albert E. Heustis, M.D., State Health Commissioner

New Policy Regarding Eligibility for Special Medical Certificate

The general policy regarding eligibility for special medical certificate for marriage license as required under Section 1A of Act 207, P.A. 1937, has been revised in accordance with recommendations made by the Venereal Disease Control Committee of the Michigan State Medical Society. The major change involves the issuance of special medical certificates to patients with early syphilis. In the past it was necessary for such patients to complete one year's satisfactory observation following treatment before special dispensation could be issued. It is now possible for patients with early syphilis to receive a special certificate immediately following treatment. The revised policy, which was approved by the State Council of Health on October 27, 1959, is as follows:

Early Syphilis.—All patients with early syphilis (less than 4 years' duration) shall have had adequate intensive penicillin therapy. This shall include not less than six million units of procaine penicillin total dosage, or 4,800,000 units of benzathine penicillin G. Recommended treatment schedules may be obtained from the Michigan Department of Health.

Late Latent Syphilis.—Required treatment same as for early syphilis.

Late Symptomatic Syphilis.—For most types, treatment is the same as for latent syphilis. In neurosyphilis give 15 daily doses of 600,000 units of procaine penicillin (9 million units); or give 1,200,000 units procaine penicillin with aluminum monostereate (PAM) twice weekly for four weeks, totaling 9,600,000 units.

Syphilis in Pregnancy.—Required treatment same as for early syphilis, unless labor is imminent, then give 2,400,000 units of penicillin immediately and follow-up as for early syphilis.

Congenital Syphilis.—Same as acquired syphilis. Late congenital syphilis should be treated the same as latent or late syphilis.

Persons Allergic to Penicillin.—Oxytetracycline hydrochloride (Terramycin), chlortetracycline hydrochloride (Aureomycin), chloramphenicol (Chloromycetin), erythromycin (Erythrocin) are recommended. At the present time it is recommended that total dosage be 40 to 60 grams (influenced by the amount of penicillin patient may have already received), usually given at the rate of ¼ to ½ gram Q.I.D.

Women with Late Syphilis.—Women with late syphilis but of child-bearing age should preferably have as much treatment as for early syphilis.

Factors Which Modify These Requirements.—

1. Factors which decrease the amount of treatment required:
   (a) *Persons with late syphilis* who are known to have had their infection for many years and are fifty or more years of age may be considered for special certification even without treatment. The female marital partner, however, to be certified in this classification must be incapable of bearing children through either physiologic or surgical menopause.
   (b) *Proven congenital syphilis.*
   (c) *Demonstrated pregnancy.* Special dispensation certification may be issued in such cases regardless of the presence of venereal disease in either or both parties to the proposed marriage. In such cases, however, the indicated treatment shall have been arranged for and satisfactory assurances given that it will be carried out.
2. Factors which increase the amount of treatment required:
   (a) History of clinical or serological relapse.

Gonorrhea and/or Chancroid.—If the patient is found to be infected with gonorrhea and/or chancroid, certification for marriage shall not be issued until the absence of gonorrheal infection and/or chancroid is demonstrated to the satisfaction of the physician.

Suspected Non-specific or Biologic False-Positive Serologic Reactions.—Frequent requests are made for special certification on the basis of false-positive serologic reactions without sufficient evidence to warrant such a request. Such cases must have been observed for sufficient time to establish the fact that the titre is not increasing as would develop with a new infection. A statement shall accompany the request that:

1. No history of syphilis or treatment of same can be secured;
2. No clinical evidence of syphilis is present;
3. That the presence of congenital syphilis is satisfactorily eliminated (preferably including an examination of the mother or siblings).

It is characteristic of false-positive reactions that they tend to be of weak titre. Frequently there is a disagreement between precipitation (Kahn, Kline, et cetera) tests and complement fixation (Wassermann) tests. They also tend to vary in degree of positivity from day to day and between laboratories. The presence of conditions recognized as causes of false-positive reactions have diagnostic weight. Often it is necessary to carry such cases under observation for many months before a decision can be made. Treatment shall not be begun until a diagnosis of syphilis is justified.

If the biologic false-positive reaction is suspected, one of the treponemal antigen tests such as the Reiter Protein Complement Fixation (RPCF), Treponemal Pallidum Complement Fixation (TPCF), or Treponemal Pallidum Immobilization (TPI) should be performed. These tests will assist in the differential diagnosis.

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Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. *80*:481 (Oct.) 1958. 2. Ferrand, P. T.: Minnesota Med. *41*:853 (Dec.) 1958. 3. Mathews, F. P.: Am. J. Psychiat. *114*:1034 (May) 1958.

SEARLE

In Memoriam

FRANK J. GIBSON, M.D., eighty-five, Jackson physician for thirty-seven years, died October 4, 1959.

Doctor Gibson was born in Jackson, attended Jackson High School and received his degree in medicine from the University of Michigan in 1902. He did some postgraduate work at the University of Vienna, finishing there in 1913.

At different times, he served as chief of staff at Foote and Mercy hospitals of Jackson.

NICHOLAS E. LANNING, M.D., fifty-two, Grand Rapids physician, died unexpectedly October 17, 1959.

Born in Drenthe, Michigan, Doctor Lanning attended Hope College, the University of Chicago and Rush Medical School, where he received his medical degree in 1935.

Doctor Lanning interned at Harper Hospital in Detroit before moving to Grand Rapids where he had practiced for twenty-two years.

He was a member of Madison Square Businessmen's Association and Burton Heights Christian Reformed Church.

THOMAS ALEXANDER McDONALD, M.D., sixty-five, Monroe ear, eye, nose and throat specialist, died October 13, 1959.

Doctor McDonald was born in Lanark County, Ontario, and was graduated from the University of Toronto Medical School in 1924. He served his internship and was in general practice in Charleston, West Virginia, from 1924 to 1927, when he came to Detroit for a residency at Grace Hospital. He started practice in Monroe in 1929, and was a former chief of staff at Monroe Mercy Hospital.

Joining the Canadian Army for service in World War I, Doctor McDonald was sent to England where he transferred to the Royal Air Force and served with the War Birds organization.

He was a member of the Monroe Rotary Club.

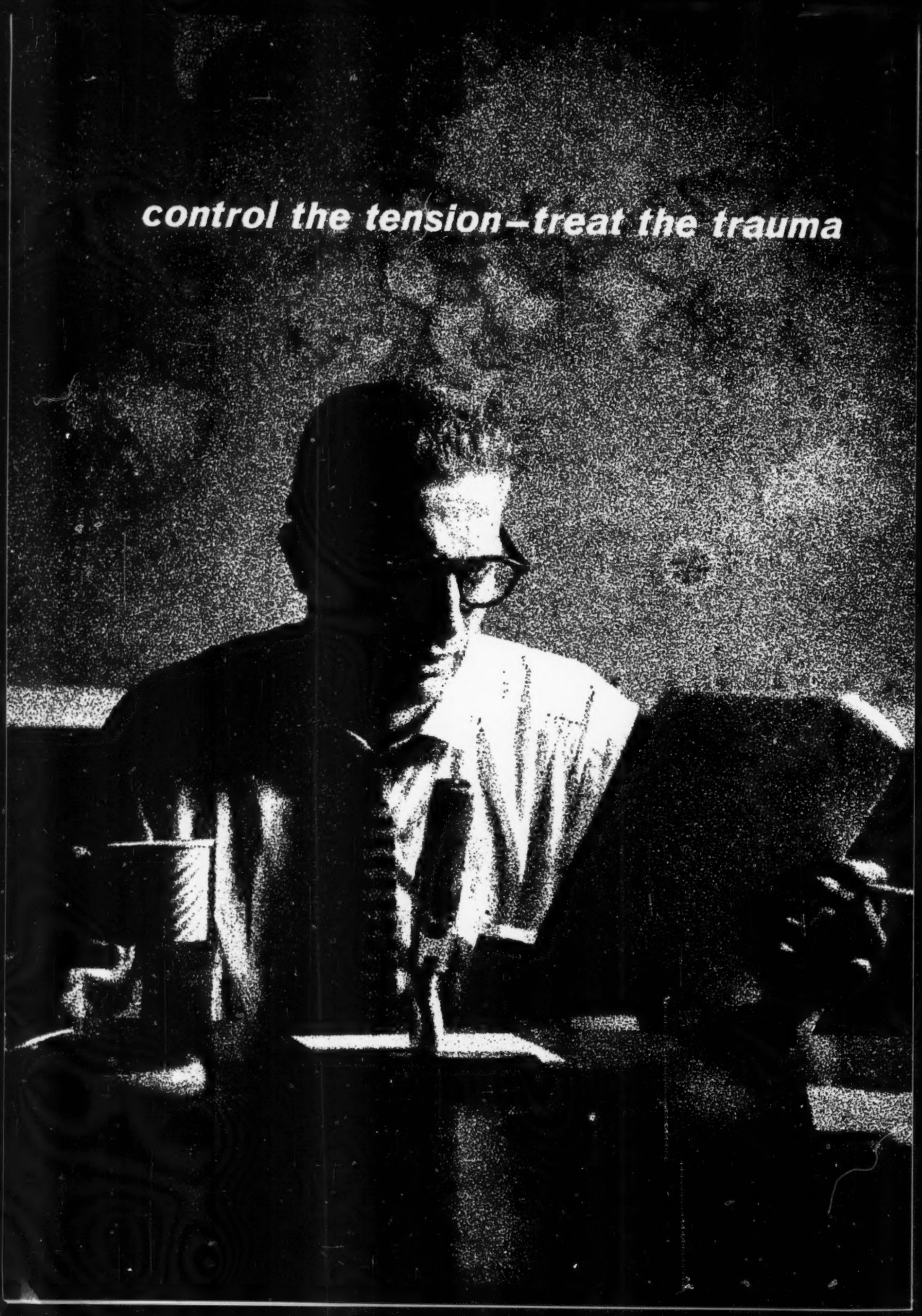
HAROLD A. MILLER, M.D., forty-eight, Saline physician, died October 15, 1959.

Born in Columbus, Ohio, Doctor Miller was graduated from the University of Michigan Medical School in 1935, and conducted a private practice in Saline between 1937 and this year except for time spent as a major with the U. S. Army Medical Corps in the South Pacific.

He was vice chief of staff of the new Saline Hospital and a member of the staffs of St. Joseph Mercy Hospital in Ann Arbor and Beyer Memorial Hospital in Ypsilanti.

Doctor Miller was president of the Saline School Board of Education for four of the eleven years between 1946 and 1957 he served on the board.

(Continued on Page 2068)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HAROLD A. MILLER, M.D.

(Continued from Page 2064)

He was a member of the Saline Methodist Church, the Masonic Lodge, Order of Eastern Star, the Rotary Club, the American Legion, the Elks Lodge and the Tri-county Sportsman's Club.

EDWARD JAMES O'BRIEN, M.D., seventy-two, world famous Detroit chest surgeon, died October 19, 1959.

A native of Hatley, Wisconsin, Doctor O'Brien was graduated from the Detroit College of Medicine, now Wayne State University, in 1909. After his internship at Harper Hospital, he began practicing medicine in Detroit in 1911.

Doctor O'Brien became chief surgeon at Herman Kiefer Hospital, Detroit, in 1922 and chief of thoracic surgery in 1928. He served in the latter post for more than thirty years. During this period, he developed the "collapse therapy" method of treating tuberculosis, instigated Detroit's program for early diagnosis and treatment of tuberculosis and was instrumental in obtaining State subsidies for tuberculosis patients. In 1928, he was appointed to the State Tuberculosis Commission, serving as its president until 1950.

He was professor of thoracic surgery for Wayne State University, starting in 1934. In 1952, Doctor O'Brien became the first recipient of the Bruch H. Douglas Award for his outstanding contributions to the control and treatment of tuberculosis.

WALTER S. STINSON, M.D., fifty-eight, former MSMS counselor from Bay City, died October 15, 1959.

A 1929 graduate of the University of Michigan Medical School, Doctor Stinson interned at Grace Hospital, Detroit, and was on the staff of Henry Ford Hospital for two years before beginning practice in Bay City in 1932. He was a former chief of staff at both General Hospital and Mercy Hospital, Bay City. He served as a member of the MSMS House of Delegates for six years prior to his election as Councilor, and was a past president of the Bay-Arenac-Iosco County Medical Society. He was also a member of the American Academy of General Practice.

LARS W. SWITZER, M.D., fifty-eight, physician at the Chevrolet plant of General Motors in Bay City, died October 14, 1959.

Born in Wisconsin, Doctor Switzer spent his early years in Ludington and graduated in 1927 from the University of Illinois Medical School. After graduation he returned to Ludington to practice with his father, the late G. O. Switzer, M.D. Later, he received his master's degree in public health from the University of Michigan and was medical director for the Manistee-Mason-Benzie County Health Department.

For the past eight years Doctor Switzer was medical director at the Chevrolet plant at Bay City. He was on the staff of Mercy Hospital of that city.

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Michigan Authors

Wyman C. C. Cole, Sr., M.D., Detroit, is the author of an article entitled "Pediatrics in the Space Age," published in the *Journal of the American Medical Association*, October 10, 1959.

George E. Block, M.D., Ann Arbor, is the author of an article entitled "Endocrine Treatment of Advanced Mammary Cancer," published in GP, October, 1959.

Wyman C. C. Cole, Sr., M.D., Detroit, is the author of an article entitled "Pediatrics in The Space Age," read before the Section on Pediatrics at the 108th Annual Meeting of the American Medical Association, Atlantic City, June 9, 1959, and published in the *Journal of the American Medical Association*, October 10, 1959.

William W. Coon, M.D., and **Frederick A. Coller, M.D., F.A.C.S.**, Ann Arbor, are the authors of an article entitled "Some Epidemiologic Considerations of Thromboembolism" published in *Surgery, Gynecology and Obstetrics*, October, 1959.

Abraham Becker, M.D., F.A.C.P., and **Edwin Kerr, M.D.**, Detroit, are the authors of an article entitled "Pneumonia at Harper Hospital 1942-1958," published in the *American Practitioner and Digest of Treatment*, October, 1959.

Morris J. Lipnik, M.D., and **Stanley H. Levy, M.D.**, Detroit, are the authors of an article entitled "Defective Epidermal Utilization and Storage of S^{35} in Psoriasis," published in *AMA Archives of Dermatology*, July, 1959.

Morris J. Lipnik, M.D., and **Stanley H. Levy, M.D.**, Detroit, are the authors of an article entitled "Altered L-Methionine S^{35} Utilization in Psoriasis," published in *The Journal of Investigative Dermatology*," April, 1959.

R. M. Balow, M.D., and **F. K. Wietersen, M.D.**, Detroit, are the authors of an article entitled "Post-emetic Rupture of the Esophagus," published in *Grace Hospital Bulletin*, July, 1959.

M. Harley Donnett, M.D., and **Stephen J. Figiel, M.D.**, Detroit, are the authors of an article entitled "Value of Added Filtration in Diagnostic Roentgenography," published in the *Grace Hospital Bulletin*, July, 1959.

Leo S. Figiel, M.D., and **Steven J. Figiel, M.D.**, Detroit, are the authors of an article entitled "Sigmoid Volvulus: Variations in the Roentgen Pattern," published in the *American Journal of Roentgenology*, April, 1959.

Coleman Mopper, M.D., and **James R. Rogin, M.D.**, Detroit, are the authors of an article entitled "Estrogen Therapy in Acne," published in the *Journal of the Michigan State Medical Society* and condensed in *Current Medical Digest*, October, 1959.

S. J. Axelrod, M.D., and **W. R. Mills, Ph.D.**, Ann Arbor, are the authors of an article entitled "Medical Manpower in Michigan: Applicants to Medical School," published in *The Journal of Medical Education*, September 1959.

C. E. Rupe M.D., and **S. N. Nickel, M.D.**, Detroit, are the authors of an article entitled "New Clinical Concept of Systemic Lupus Erythematosus," published in the *Journal of the American Medical Association*, October 24, 1959.

* * *

Two internationally known physicians were presented honorary doctor of law degrees at the annual University of Michigan Medical Honors Convocation October 17, 1959.

University President Harlan Hatcher presented the degrees to Frederick A. Coller, M.D., and Udo J. Wile, M.D., both emeritus professors of the Medical School.

The Convocation closed the three-day meeting of the seventh Triennial Medical Alumni Conference, attended by 500 doctors from throughout the United States.

F. A. Coller, M.D.

Udo J. Wile, M.D.

Doctor Coller, major speaker at the convocation, retired in 1957 after serving as head of the U-M surgery department for twenty-seven years. His citation recognized Dr. Coller's "rare sensitivity to all needs of the surgical patient."

The Frederick A. Coller Society, founded in his honor in 1947, is made up of surgeons who trained under him. He has been president of the American Surgical Association and of the American College of Surgeons, and is one of fifty members of the Royal College of Surgeons of England. He remains active in private practice and research.

Dr. Wile, U-M professor emeritus of dermatology and syphilology and chairman of department for thirty-five years, was cited for his "contributions to the scientific knowledge of diseases and his advances in medical theory and practice."

Former president of the American Dermatological Association, Dr. Wile established the first university hospital clinic in the United States for training dermatologists and syphilologists. He retired from the University of Michigan in 1947 and is in private practice.

* * *

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(Continued on Page 2084)

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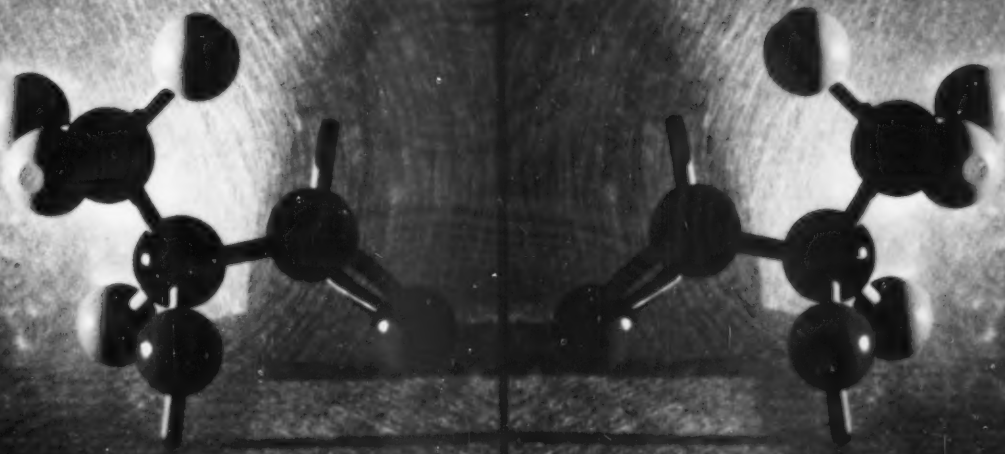

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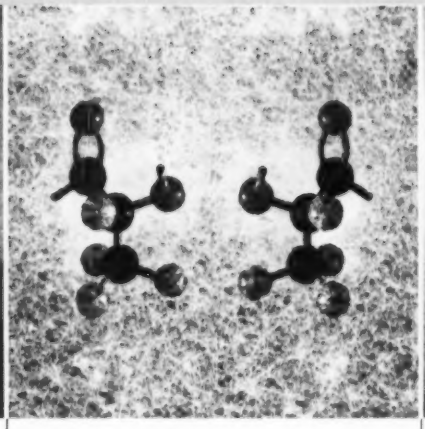

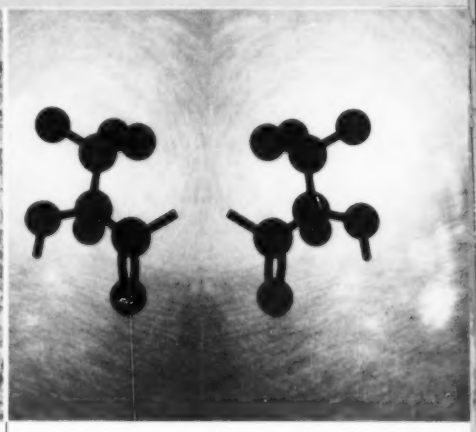

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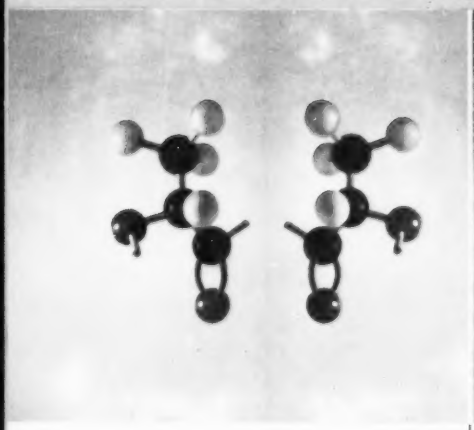
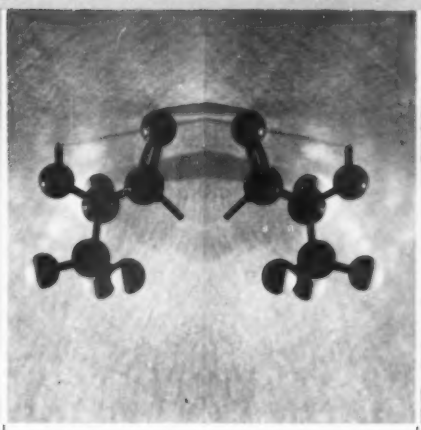
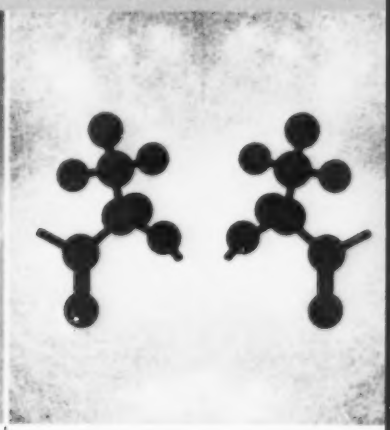






ANTIBIOTIC ACTIVITY DIRECTLY PROPORTIONAL TO ORAL DOSE

REDUCED HAZARD OF SERIOUS ALLERGENICITY BY SAFER ORAL ROUTE

MANY STAPH STRAINS MORE SENSITIVE TO SYNCILLIN

BRISTOL

ORIGIN OF A NEW SYNTHETIC PENICILLIN

In March, 1957, Dr. John C. Sheehan of the Massachusetts Institute of Technology announced the total synthesis of penicillin from common raw materials, thus solving a problem which had baffled research workers for more than 15 years. Although total synthesis was not commercially practicable, this work, sponsored by Bristol Laboratories, made possible the subsequent synthesis of new penicillins not occurring in nature. Later scientists at Beecham Laboratories in England discovered that a key intermediate (6-aminopenicillanic acid) could be produced by a fermentation process. With these achievements, large scale production of synthetic penicillins became feasible.

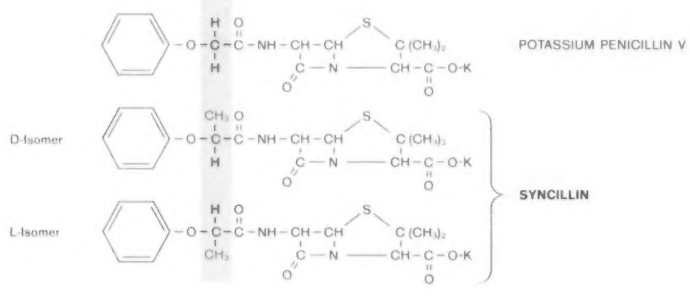
Organic chemists at Bristol then embarked upon an intensive program to develop better penicillins. Over five hundred were synthesized and underwent preliminary screening. Forty-six showed sufficient promise to warrant further investigation. Extensive microbiological, pharmacological, and clinical screening indicated that one compound, SYNCILLIN, had advantages of major importance over other penicillins.

SYNCILLIN is the N-acylation product of 6-aminopenicillanic acid and α-phenoxypropionic acid (the phenylether of lactic acid). It is freely soluble in water and remarkably resistant to decomposition by acid. The acid stability of SYNCILLIN is equivalent to that of penicillin V at pH 2 and pH 3 at 37° C.[1]

SIGNIFICANCE OF MOLECULAR ASYMMETRY AND ISOMERIC COMPLEMENTARITY

SYNCILLIN has a molecular configuration similar to penicillin V, but contains an additional CH_3 group so positioned as to render the adjacent carbon atom asymmetric. (In the formulae below, the added CH_3 group is shown in blue and the asymmetric carbon atom in red.) As a result, SYNCILLIN occurs as a mixture of two isomers.

Each isomer has been synthesized in essentially pure form and found to possess distinctive chemical and biological properties. The L-isomer is 2 to 17 times more active than the D-isomer against many of the organisms tested. As produced, SYNCILLIN is a mixture of the L-isomer and the D-isomer. As will be shown later, the antibiotic effect of the clinically available mixture, SYNCILLIN, is greater than either isomer alone against many organisms. This phenomenon is referred to here as *isomeric complementarity*.



SYNCILLIN

major therapeutic advantages accompany molecular asymmetry

ISOMERIC COMPLEMENTARITY DEMONSTRATED IN VITRO

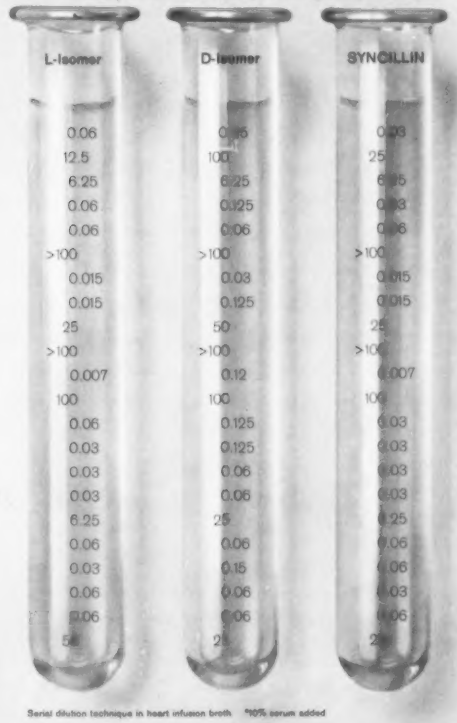
The *in vitro* minimum inhibitory concentration (MIC) of SYNCILLIN and of each of its two component isomers was determined for a variety of common pathogens and laboratory test organisms. As may be seen from Table 1, all three are highly effective against penicillin-susceptible staphylococci and against pneumococci, streptococci, gonococci, and corynebacteria; all are ineffective against Salmonella, *E. coli*, and other gram-negative coliform bacilli.

SYNCILLIN was more active against many of the test strains including some streptococci and staphylococci than either of its components. This demonstrates *in vitro* the phenomenon of isomeric complementarity.

TABLE 1

Minimum Concentrations of SYNCILLIN and Components Required to Inhibit a Wide Range of Bacteria

	Minimum Inhibitory Concentration (MIC) in Micrograms per Milliliter		
	L-isomer	D-isomer	SYNCILLIN
Bacillus anthracis	0.06	0.06	0.03
Bacillus cereus	12.5	100	25
Bacillus circulans ATCC 9961	6.25	6.25	6.25
Corynebacterium xerosis	0.06	0.125	0.03
*Diplococcus pneumoniae	0.06	0.06	0.06
Escherichia coli ATCC 8739	>100	>100	>100
Gaffkya tetragena	0.015	0.03	0.015
Micrococcus flavus	0.015	0.125	0.015
Salmonella paratyphi A	25	50	25
Salmonella typhosa	>100	>100	>100
Sarcina lutea ATCC 10054	0.007	0.12	0.007
Shigella sonnei	100	100	100
Staphylococcus aureus 209P	0.06	0.125	0.03
Staphylococcus aureus var. Smith	0.03	0.125	0.03
Streptococcus agalactiae ATCC 1077	0.03	0.06	0.03
Streptococcus dysgalactiae ATCC 9926	0.03	0.06	0.03
Streptococcus faecalis PCI 1305	6.25	25	6.25
*Streptococcus pyogenes 203	0.06	0.06	0.06
*Streptococcus pyogenes Digonnet	0.03	0.15	0.06
Streptococcus pyogenes 2320	0.06	0.06	0.03
Streptococcus pyogenes 23586	0.06	0.06	0.06
Vibrio comma	50	25	25

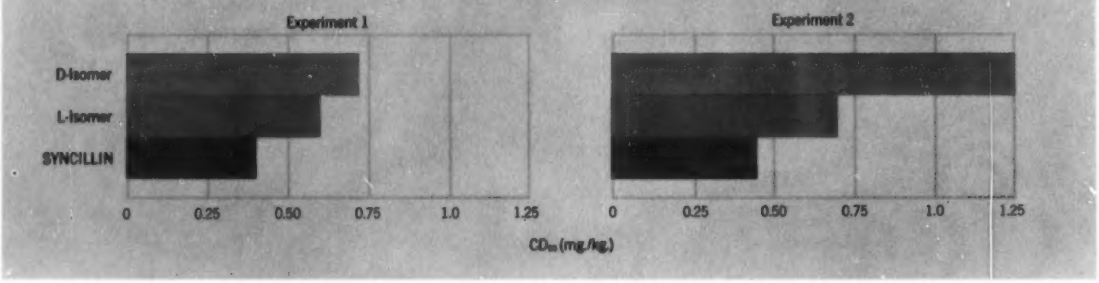


Serial dilution technique in heart infusion broth *10% serum added

ISOMERIC COMPLEMENTARITY CONFIRMED IN VIVO

To determine the median curative dose (CD_{50}) mice were infected with 100 times the lethal dose of *Staphylococcus aureus*. Each penicillin being tested was administered intramuscularly at the same time, and the dose required to cure half the animals determined. The greater effect of the mixture of the two isomers (SYNCILLIN) is shown in two independent experiments. (See Figure 1.) Note that isomeric complementarity is thus confirmed *in vivo*.

FIGURE 1 — Median Curative Dose (CD_{50}) for *Staphylococcus aureus* (var. Smith) Infections

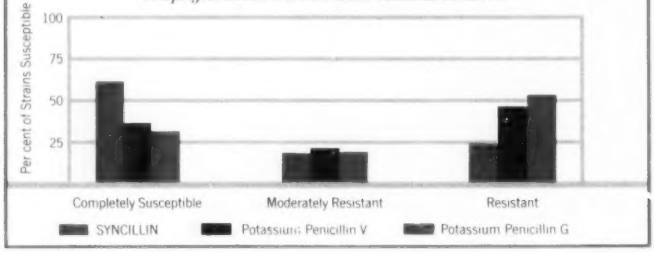


MANY STRAINS OF STAPHYLOCOCCI MORE SENSITIVE TO SYNCILLIN

SYNCILLIN has been tested against a large number of strains of *Staphylococcus aureus* isolated from clinical sources. Many organisms resistant to potassium penicillin G and potassium penicillin V proved sensitive to SYNCILLIN.

Wright[2] performed sensitivity studies on 54 strains, the majority of which were resistant or moderately resistant to penicillin V and penicillin G. Thirty-two (60%) of the strains were sensitive to SYNCILLIN, approximately twice as many as with the other penicillins. (See Figure 2.) In two-thirds of the isolates, SYNCILLIN produced inhibition at concentrations lower than those required for either of the other antibiotics. One strain was more sensitive to penicillin G.

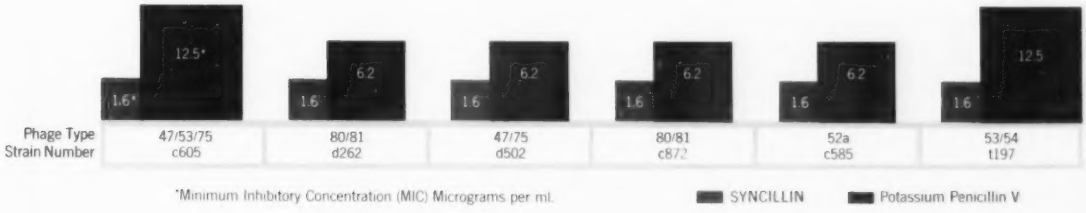
FIGURE 2 – *In Vitro* Sensitivity of 54 Strains of Coagulase-Positive *Staphylococcus aureus* from Clinical Sources



Of equal interest are the findings of White.[3] Six penicillin-resistant strains of staphylococci were isolated from hospital infections. None was sensitive to potassium penicillin V. All were sensitive to SYNCILLIN. (See Figure 3.)

FIGURE 3

Minimum Concentrations of SYNCILLIN Required to Inhibit
Hospital Strains of *Staphylococcus aureus* Resistant to Potassium Penicillin V

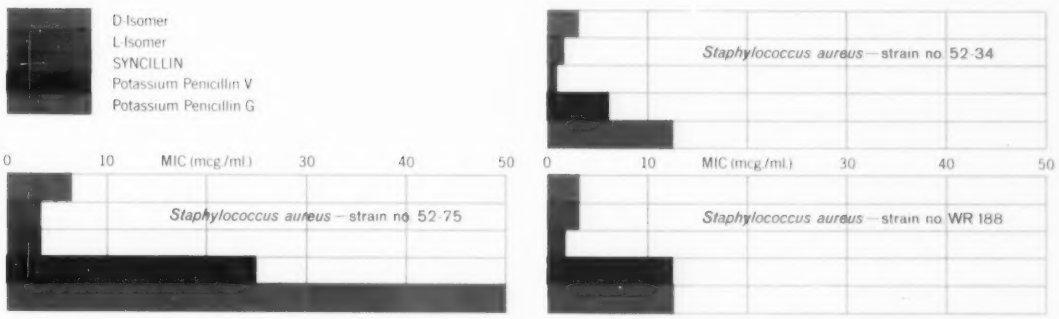


The efficacy of SYNCILLIN against the type 80/81 Staphylococcus (dangerous and widespread in hospitals) is worthy of special attention.

The complementary action of the component isomers is also seen with strains of staphylococci resistant to penicillins. Note that SYNCILLIN is more effective than either isomer against strains 52-34 and WR 188. (See Figure 4.) Against all three strains, SYNCILLIN is effective at concentrations below serum levels, while penicillins V and G are ineffective.

FIGURE 4

Minimum Inhibitory Concentrations (MIC) for Coagulase-Positive
Penicillin-Resistant Strains of *Staphylococcus aureus*



Isomeric complementarity has thus been demonstrated for:

— *certain penicillin-susceptible streptococci, staphylococci and corynebacteria* in vitro *(Table 1)*

— *penicillin-susceptible staphylococci* in vivo *(Figure 1)*

— *penicillin-resistant staphylococci* in vitro *(Figure 4)*

SYNCILLIN

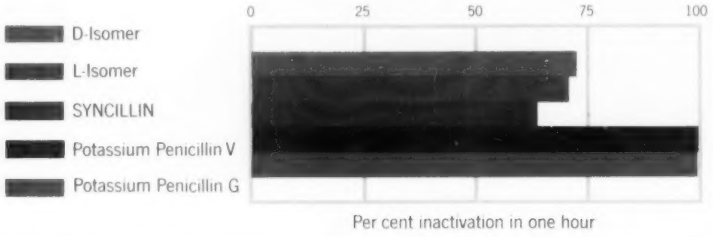
major therapeutic advantages accompany molecular asymmetry

ISOMERIC COMPLEMENTARITY SHOWN BY REDUCED RATE OF INACTIVATION BY PENICILLINASE

Bacterial resistance to penicillin has been attributed to the action of penicillin-inactivating enzymes produced by the invading organisms.[4] As shown in Figure 5, SYNCILLIN is less affected by staphylococcal penicillinase than either of its component isomers – a further demonstration of isomeric complementarity. Further, SYNCILLIN is shown to be less inactivated by this enzyme than penicillin V and penicillin G.

Resistance to SYNCILLIN develops in a slow, step-wise manner characteristic of other penicillins, in contrast to the usually rapid development of resistance to streptomycin.

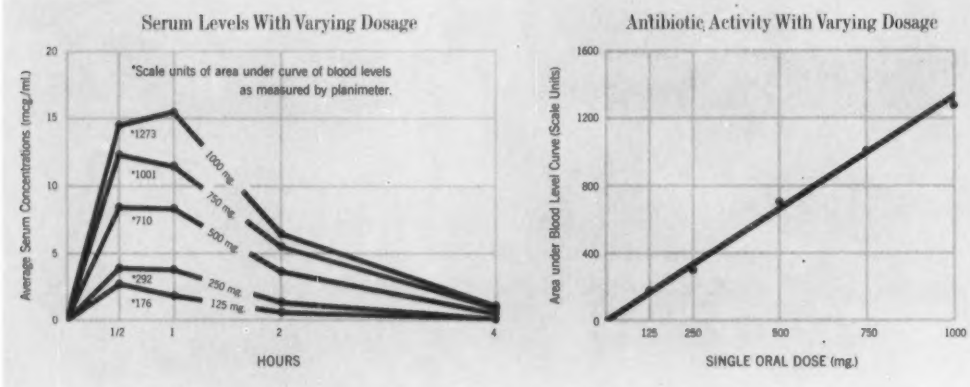
FIGURE 5—Effect of Staphylococcal Penicillinase on Different Penicillins



ANTIBIOTIC ACTIVITY DIRECTLY PROPORTIONAL TO ORAL DOSAGE

Cronk[5] studied blood levels after administering varying amounts of SYNCILLIN. (Figure 6.) Total antibiotic activity (obtained by measuring areas under curves with a planimeter) increases rapidly as the dose is doubled. These data show that increased dosage markedly increases serum concentration and thus may enhance the drug's effectiveness.

FIGURE 6



SYNCILLIN

major therapeutic advantages accompany molecular asymmetry

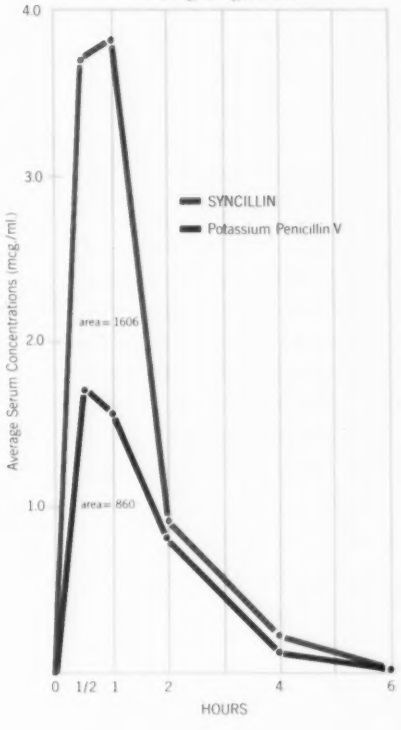
BLOOD LEVELS TWICE AS HIGH AS WITH POTASSIUM PENICILLIN V AFTER ORAL ADMINISTRATION

Wright[6] performed comparative crossover blood level studies on volunteer subjects receiving equivalent amounts of potassium penicillin V and SYNCILLIN. The peak concentrations attained during the first hour after administration were twice as high with SYNCILLIN.

The total antibiotic activity as measured by the area under the curves (see Figure 7) indicates an almost 2 to 1 superiority of SYNCILLIN (1606) over potassium penicillin V (860).

The higher blood levels may be of value with organisms of only moderate penicillin-sensitivity where doubling the blood concentration may be essential for effective bactericidal action. In addition these higher levels may be necessary where there is infection in areas with a poor blood supply.[7] Under these circumstances a higher blood concentration may provide the increased diffusion pressure required to deliver adequate amounts to the tissue.

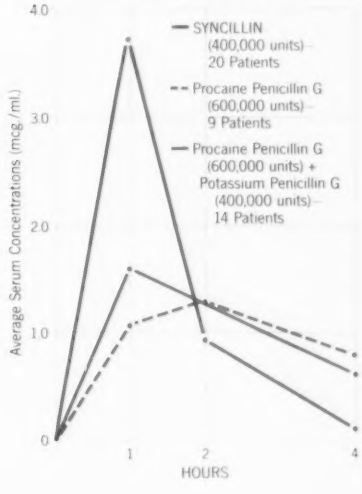
FIGURE 7
20 Subject Crossover
250 mg. Single Dose



BLOOD LEVELS MUCH HIGHER THAN WITH INTRAMUSCULAR PENICILLIN G

In addition, blood levels attained with oral SYNCILLIN[6] are much higher than those with intramuscular penicillin G.[8a, b] (See Figure 8.) Note that the level at one hour for SYNCILLIN (3.8 mcg./ml.) is more than twice as high as with procaine penicillin G, even when reinforced with potassium penicillin G (1.6 mcg./ml.). Since penicillins are *bactericidal*, these intermittent high serum levels can be clinically significant. Thus, SYNCILLIN offers the promise of superior efficacy via the safer oral route.

FIGURE 8—Serum Levels after Oral Administration of SYNCILLIN (250 mg.) and after Intramuscular Injection of Penicillin G



SYNCILLIN

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REDUCED HAZARD OF SERIOUS ALLERGENICITY BY SAFER ORAL ROUTE

SYNCILLIN has been administered in multiple doses to 437 patients and volunteers. One patient developed itching during therapy, possibly an allergic side effect. Another had a purpuric rash, but no relationship to SYNCILLIN was established. No reactions were observed in 9 patients with a known history of sensitivity to penicillin.

While the above data suggests the possibility of reduced allergenic hazard, no definite conclusions may be drawn at this time. *The usual precautions for oral penicillin therapy should be observed.* Patients with histories of asthma, hay fever, urticaria, or previous penicillin-sensitivity should especially be watched carefully. Since SYNCILLIN is administered orally, it may be expected to be safer than parenteral penicillin.

As Flippin[9] recently stated, "... it is well established that serious allergy to the drug [penicillin] is most likely to occur following parenteral administration, especially after repeated intramuscular injections; the oral route is least likely to initiate severe hypersensitivity reactions. This can be explained partly by the fact that when reactions develop following oral medication, they are usually slow enough to treat symptomatically; thus the progression of the reaction can usually be interrupted. . . . In view of the relatively high incidence of severe allergy to injectable penicillin, it would seem advisable to employ oral penicillin routinely, except in the control of infections involving the blood stream, endocardium, meninges, etc., in which cases the parenteral route remains the preferred treatment."

SYNCILLIN, like other penicillins, is essentially free of other toxicity. No hematopoietic, hepatic, or renal toxicity was observed in 210 volunteers receiving 1 gm. daily for 2 to 3 weeks.[10]

CLINICAL EFFICACY DEMONSTRATED IN PENICILLIN-SENSITIVE INFECTIONS

Clinical trials conducted by Blau and Kanof,[11] White,[12] Prigot,[13] Robinson,[14] Dube,[15] Ferguson,[16] Rutenburg,[17] Richardson,[18] Bunn,[19] Cronk,[5] Kligman,[10] and Yow [20] demonstrated the efficacy of SYNCILLIN in a variety of streptococcal, staphylococcal, pneumococcal, and gonococcal infections. Conditions treated included respiratory, skin, soft tissue, wound, and chronic urinary tract infections; acute gonorrhea; cellulitis; septicemia; otitis media; gingivitis; and Vincent's angina. In a few patients SYNCILLIN was used for rheumatic fever or gonorrheal prophylaxis.

One hundred seventy-two of one hundred ninety-six patients responded favorably to SYNCILLIN. The failures included 1 patient with pustular dermatoses, 10 elderly patients with chronic urinary tract infections, 1 patient with gonorrhea, 1 patient with a gram-negative infection, and 10 patients with staphylococcal infections. Lack of response of staphylococcal infections was attributed to the presence of resistant organisms or local suppurative foci requiring drainage.

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Relatively few side effects were encountered. One patient experienced moderate itching of the skin which was controlled by an antihistamine. Another reported pruritus ani which did not interfere with therapy. Diarrhea occurred in 4 instances. There was one purpuric rash, but no relationship to SYNCILLIN could be established.

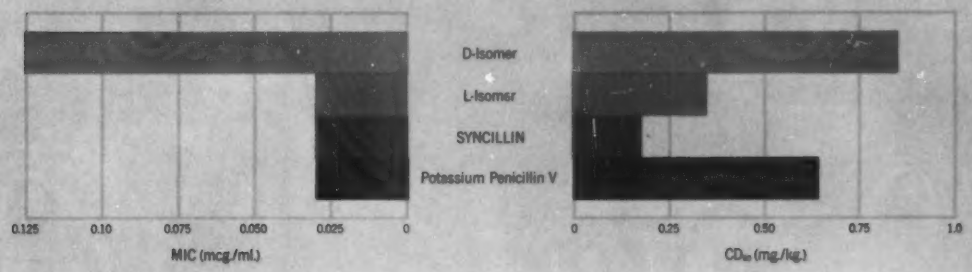
Clinical response usually begins within 24 hours in infections susceptible to SYNCILLIN. Recovery occurs in 4 to 7 days depending upon the severity of the infection. Gonorrheal infections respond very promptly to SYNCILLIN; 500 mg. b.i.d. for two days usually produce bacteriologic cures.

IMPROVED ANTIBIOTIC EFFECT FROM COMPLEMENTARY ACTION OF ISOMERS

SYNCILLIN is a mixture of isomers. The L-isomer is 2 to 17 times more active than the D-isomer against many of the organisms tested. Furthermore, the D- and L-isomers have other distinguishing chemical, pharmacological, and microbiological properties. Their *in vivo* and *in vitro* activities differ for many important pathogens. *Against many of the organisms tested, the combination of isomers* (SYNCILLIN) *is much more active than the stronger isomer alone.* This phenomenon of isomeric complementarity is not always demonstrable, for in a few instances SYNCILLIN is slightly less active.

Isomeric complementarity has previously been demonstrated *in vitro* (Figure 4) and *in vivo* (Figure 1). Figure 9 reveals a third form of superiority related to isomeric complementarity. Equal concentrations of SYNCILLIN and penicillin V were required to inhibit this growth of staphylococci *in vitro*. But, *in vivo*, a much smaller amount of SYNCILLIN *(one-third that of penicillin V)* was effective in an experimental infection with the same strain. These observations on complementary action indicated the advantage of producing the mixture of isomers as the medication to be made available for clinical therapy.

FIGURE 9—Comparison of CD_{50} and MIC Values Against *Staphylococcus aureus* (var. Smith)



Isomeric complementarity has thus been demonstrated for:

— *certain penicillin-susceptible streptococci, staphylococci and corynebacteria* in vitro *(Table 1)*

— *penicillin-susceptible staphylococci* in vivo *(Figures 1 and 9)*

— *penicillin-resistant staphylococci* in vitro *(Figure 4)*

— *staphylococcal penicillinase antibiotic inactivation (Figure 5)*

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Indications:

SYNCILLIN is recommended in the treatment of infections caused by pneumococci, streptococci, gonococci, corynebacteria, and penicillin-sensitive staphylococci. In addition, SYNCILLIN is effective against certain strains of staphylococci resistant to other penicillins.

SYNCILLIN, like other oral penicillins, is not recommended at the present time in deep-seated or chronic infections, subacute bacterial endocarditis, meningitis, or syphilis.

Dosage:

125 mg. or 250 mg. three times daily, depending on the severity of infection. Larger doses (e.g., 500 mg. t.i.d.) may be used for more severe infections. SYNCILLIN may be administered without regard to meals.

Beta hemolytic streptococcal infections should be treated with SYNCILLIN for at least ten days.

Precautions:

While present data suggest the possibility of reduced allergenic hazard, no definite conclusions may be drawn at this time. *Therefore the usual precautions with oral penicillin therapy must be observed.* Patients with histories of asthma, hay fever, urticaria, or previous reactions to penicillin should be watched with special care.

Diarrhea has been reported occasionally following heavy dosage. If this occurs, the interval between dosages should be lengthened.

If superinfection occurs during therapy, appropriate measures should be taken.

Since some strains of staphylococci are resistant to SYNCILLIN as well as to other penicillins, cultures and sensitivity tests should be performed where indicated by clinical judgment. As is true with all antibiotics, clinical response does not always correlate with laboratory bacterial sensitivity reports.

Supply:

125 and 250 mg. tablets, bottles of 25 and 100. 125 mg. powder for oral solution, 60 ml. vials.

References: 1. Lein, J.: Microbiology report to Bristol Laboratories Inc. 2. Wright, W. W.: Microbiology report to Bristol Laboratories Inc. 3. White, A. C.: Microbiology report to Bristol Laboratories Inc. 4. Dubos, R. J.: Bacterial and Mycotic Infections of Man, 3rd edition, Philadelphia, J. B. Lippincott Co., p. 690. 5. Cronk, G. A.: Clinical report to Bristol Laboratories Inc. 6. Wright, W. W.: Clinical report to Bristol Laboratories Inc. 7. Kass, E. H.: Am. J. Med. *18*:764 (May) 1955. 8a. White, A. C.; Couch, R. A.; Foster, F.; Calloway, J.; Hunter, W., and Knight, V.: in Welch, H. and Marti-Ibañez, F.: Antibiotics Annual — 1955-1956, Medical Encyclopedia, Inc., New York, 1956, p. 490. b. Data on file — at Bristol Laboratories. 9. Flippin, H. F.: Pennsylvania M. J. *62*:864 (June) 1959. 10. Kligman, A.: Clinical report to Bristol Laboratories Inc. 11. Blau, S., and Kanof, N.: Clinical report to Bristol Laboratories Inc. 12. White, A. C.: Clinical report to Bristol Laboratories Inc. 13. Prigot, A.: Clinical report to Bristol Laboratories Inc. 14. Robinson, C.: Clinical report to Bristol Laboratories Inc. 15. Dube, A. H.: Clinical report to Bristol Laboratories Inc. 16. Ferguson, B.: Clinical report to Bristol Laboratories Inc. 17. Rutenburg, A. M.: Clinical report to Bristol Laboratories Inc. 18. Richardson, J. H.: Clinical report to Bristol Laboratories Inc. 19. Bunn, P. A.: Clinical report to Bristol Laboratories Inc. 20. Yow, E. M.: Clinical report to Bristol Laboratories Inc.

BRISTOL

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SYNCILLIN

(Continued from Page 2070)

if held to maturity (instead of former 3¼ per cent). The increase from 3¼ per cent to 3¾ per cent is accomplished by reducing the *term of the bond to seven years, nine months* (instead of former eight years, eleven months). There are also improved redemption values and investment yields if the new E bonds are held for less than the seven and three-fourths years to maturity.

New Series H bonds with issue dates of June 1, 1959, and after will *earn 3¾ per cent* if held to maturity (instead of former 3¼ per cent). The new H bond, like its predecessor, is a current-income bond, issued at par, redeemable at par (on one month's notice after six months' holding), and *maturing at par at the end of its ten-year life.*

As before, interim yields on the new H bonds are approximately the same as the new E's for equal periods of holding. Interest checks after the first three will be level providing 4 per cent current income after one and one-half years of holding.

All outstanding E and H bonds purchased prior to June 1, 1959, will *earn at least 1/2 per cent more than before from now to next maturity.* Present bonds earning 3¼ per cent or 3 per cent for their full current maturity periods will earn ½ per cent more. Those earnings 2.9 per cent will earn 6/10 per cent more. There will be lesser improvement in yields if redeemed earlier. The increase will be on a graduated scale, starting with next full interest period beginning June 1, 1959, or after. There is no retroactive increase in interest rates for periods prior to June 1, 1959.

Extension privileges on E bonds are as follows (a) Unmatured bonds:

1. Issued June 1949 through April 1957 (which had not reached maturity before June 1, 1959) on which a ten-year 3 per cent extension had already been promised, will now earn 3¾ per cent for the entire extension period if held the full ten years, with lesser yields (beginning at approximately 3½ per cent) if redeemed earlier. (The redemption value of any bond at the beginning of the new extension will be the base upon which interest will accrue during the ten-year extension period.)

2. Issued beginning with May 1957 will have a ten-year extension privilege, interest rates and other terms and conditions to be determined as they approach maturity; and (b) Matured bonds, issued May 1941 through May 1949, which are already in their extension period and which will begin to reach second maturity in May 1961, have been given a second ten-year extension. (Other terms and conditions including interest rates to be determined as they approach extended maturity.)

* * *

AMA Dues-Paying Members.—A new procedure for the AMA is to send to its dues-paying members the *Journal of the AMA, The AMA News, Today's Health,* and one of the ten AMA specialty journals. When paying AMA dues, please inform your county society of your choice of one of the following journals: *AMA Archives of Dermatology, AMA Journal of Diseases of Children, AMA Archives of Industrial Health, AMA Archives of Internal Medicine, AMA Archives of Neurology, AMA Archives of Ophthalmology,*

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AMA Archives of Otolaryngology, AMA Archives of Pathology, AMA Archives of General Psychiatry, AMA Archives of Surgery.

* * *

H. A. Jarre, M.D., and Steven J. Figiel, M.D., presented a paper entitled, "The Radiologic Detection, Significance and Follow-up of Colonic Polyps," at the International Congress of Radiology in Munich, Germany, in July, 1959.

* * *

Increased Federal Health Service.—At its recent biennial convention on the West Coast, AFL-CIO went on record in reaffirmation of its support of increased government spending for public health, medical care and medical education. Resolutions were adopted which call for:

Federal grants to medical and dental schools to defray operating costs, buy needed equipment and improve physical plants.

Federal loans to consumer-controlled health service plans, including clinics furnishing care on a prepayment basis, for improvement of their facilities.

Strengthening of workmen's compensation laws to provide for full coverage of occupational diseases, coverage of diseases caused by ionizing radiation and full medical benefits for job-incurred personal injuries and occupational disabilities.

The labor convention, of course, urged prompt enactment of the Forand bill and deprecated "the erroneous information about the Forand bill which the AMA circulates."

* * *

"A Matter of Fact" is the fifth in a series of medico-legal films produced by The Wm. S. Merrell Company, Cincinnati pharmaceutical manufacturers, in co-operation with The American Medical Association and The American Bar Association.

The public and doctors often do not understand the criminal and civil implications which may stem from an inadequate post-mortem examination: Innocent men may be falsely accused, insurance claims may not be honored properly and numerous other problems may result. In a suspenseful drama, "A Matter of Fact" highlights one of the more serious implications. The film portrays a typical situation in which an innocent man is accused of murder due to the lack of technical training of a county official.

"A Matter of Fact" is a 16 mm. black and white optical sound film, running time, 30 minutes. Prints are available for loan from The Wm. S. Merrell Company, Cincinnati 15, Ohio, and the American Medical Association.

* * *

Two hundred physicians and scientists of the Society of Nuclear Medicine attended a one-day meeting at The University of Michigan, October 11, 1959, in the Cooley Memorial Building on the University's North Campus.

Co-sponsored by the U-M Medical Center, and Ann Arbor's St. Joseph's Hospital and Veterans Administration Hospital, the meetings were open to all persons interested in nuclear medicine. Among the participants were speakers from the U-M, Veterans Administration, University of Pennsylvania, Henry Ford Hospital and the Edsel Ford Institute for Medical Research.

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Research-minded medical students at the University of Michigan can receive grants of $600 for part time research projects under a plan sponsored by the U. S. Public Health Service and supervised by the Medical School. Projects in both clinical and basic medical sciences are considered, and the applicant must design his project with the help of a responsible faculty member.

* * *

Triennial Reunion.—The University of Michigan's seventh medical alumni triennial reunion was held at Ann Arbor, October 15-17, 1959, with 450 doctors attending. The doctors attended sessions ranging from "Space Technology" to "Congenital Abnormalities" and "Modern Radiation Hazards." Portions of the program were carried over University Hospital's closed-circuit TV system.

H. N. Christensen, M.D., A. J. French, M.D., and M. H. Seevers, M.D., chairmen of the U-M Departments of Biochemistry, Pathology and Pharmacology, respectively, reported to the alumni on the teaching and research facilities in the Medical School's $8½ million Basic Sciences building which opened one year ago.

Major speakers at the scientific sessions included Dean H. Echols, M.D., of Tulane Medical School, New Orleans, La.; J. Robert Willson, M.D., chairman of the Department of Obstetrics and Gynecology at Temple University, Philadelphia; Robert W. Buxton, M.D., chairman of the Department of Surgery of the University of Maryland, Baltimore; Edward P. Cawley, M.D., chairman of the Department of Dermatology at the University of Virginia, Charlottesville; and James B. Wyngaarden, M.D., of Duke University Medical School, Durham, N. C.

* * *

A new x-ray therapy machine, made possible by a gift of $7,500 from the Washtenaw County Unit of the American Cancer Society is in operation at the University of Michigan Medical Center.

The apparatus is a 250-kilovolt constant potential treatment unit. Isadore Lampe, M.D., in charge of the Alice Crocker Lloyd Radiation Therapy Center, said that the unit fills an important gap which previously existed between the department's conventional x-ray facilities and the huge "Theratrons" which contain radioactive cobalt and cesium. The apparatus will be used largely in the treatment of malignant disease.

* * *

Donald J. Jaffar, M.D., was elected to a three-year term as secretary of the North Central Section of the American Urological Association, Inc. Dr. Jaffar is associate professor and acting chairman of the Urology Department, Wayne State University College of Medicine. The Association's annual meeting was held in Chicago the weekend of October 9.

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Coffee break habits are changing, as twice-a-day breaks spread, reports the Pan-American Coffee Bureau. In 1957, outside eating places were visited during coffee break by 14 per cent of factory workers, 26 per cent of office workers and 52 per cent of store workers. Today, those leaving jobs at break time amount to only 5 per cent of factory workers, 20 per cent of office workers and 23 per cent of store workers. Today, 10 million workers get two breaks daily, compared to six million in 1956. Of all coffee breaks, 60 per cent are taken by workers at their work stations or desks.—*Industrial Relations News*, July 11, 1959.

* * *

"Health" Quackery.—In this age of sputniks, inter-continental ballistic missiles and radar contact with other planets, it seems incredible that health quackery should be a major problem in the United States. Yet, the March 1959 issue of *The Bulletin of the Better Business Bureau of Metropolitan Boston* presents some startling facts which indicate that not only is health quackery on the increase, but the money losses involved are staggering. Five hundred million dollars are misspent per year on nutritional quackery; $100 million on worthless reducing schemes; and $10 million per year in fake cancer cures.

Nor does this include millions more spent on worthless "cures" for such varied conditions as: alcoholism, anemia, arthritis, baldness, diabetes, kidney disease, rupture, tobacco habit and tuberculosis.—*Massachusetts Physician*, October, 1959.

* * *

Henry Baker, M.D., Boston, Massachusetts, Professor of Clinical Medicine, Tufts University School of Medicine, was chosen as President-elect of the American College of Gastroenterology, at the Annual Meeting of the College, held September 20, 1959, in Los Angeles, Calif. He will assume the Presidency at the Annual Meeting to be held in Philadelphia, Pa., in October, 1960.

Other officers elected were: Vice-Presidents—Drs. Louis Ochs, Jr., New Orleans, La.; Edward J. Krol, Chicago, Ill.; Theodore S. Heineken, Glen Ridge, N. J., and Henry G. Rudner, Sr., Memphis, Tenn.; Secretary-General—Dr. Lynn A. Ferguson, Grand Rapids, Mich.; Secretary—Dr. Louis L. Perkel, Jersey City, N. J.; Treasurer—Dr. William C. Jacobson, New York, N. Y.

* * *

Twenty-two postgraduate courses designed to keep practicing physicians abreast of current medical developments will be offered during the 1959-60 school year at The University of Michigan Medical Center.

John M. Sheldon, M.D., director of postgraduate medicine at the University of Michigan, said this marks the largest and most diversified selection in the twenty-eight-year history of the program. Last year, 1,157 doctors attended one or more courses. Open to any licensed physician, many of the meetings run only a few days. Others continue weekly throughout the school year.

The schedule for 1959-60 is as follows:

Anatomy (Thursdays): February 11-May 26; Basic Sciences: September 28-June 3; Clinical Exercises for Practitioners (Wednesdays): October 7- March 2; Internal Medicine (Tues-

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day evenings); Electrocardiography and Heart Diseases, September 8-January 26 and Renal, Pulmonary and Blood Diseases, February 2-June 14; Clinical Internal Medicine (Thursdays): October 1-March 3.

Internal Medicine—Gastroenterology: February 22, 23, 24; Rheumatology: March 2, 3, 4; Pulmonary Diseases: March 14, 15, 16; Allergy: March 14, 18, 19; Diseases of the Heart: March 21-25; Electrocardiographic Diagnosis: March 28-April 1; Recent Advances in Therapeutics: April 4-8; Endocrinology and Metabolism: April 11-15.

Clinical Neurology: April 18, 19, 20; Obstetrics and Gynecology: January 27, 28, 29; Ophthalmology: April 25, 26, 27; Otolaryngology: April 21, 22, 23; Pediatrics: January 25, 26, 27; Pyschiatry: February 29-March 1; Diagnostic Radiology: April 4, 5, 6; and Clinical Use of Radioactive Isotopes: as arranged.

* * *

Variation in a Population.—Is it impossible for an average American family to produce an unusual child? Do a few families have a monopoly on unusual children? Roger D. Milkman (Ph.D.), University of Michigan zoologist, says: "not if the inheritance of human traits follows patterns which seem to be emerging from studies of natural variation in many animals and plants."

The greater part of natural variation in a population may well turn out to be due to rare combinations of common genes rather than to single rare genes. "If verified for human populations," Assistant Prof. Milkman says, "this would mean that almost any family has a small but definite chance to produce a genius, an artist, a moron, or a child with a cleft palate. All it takes is the right combination of the genes which are present in most parents; it's like pulling a handful of spades out of a deck of cards—rare, but not impossible."

* * *

Care for the Handicapped.—A project designed to help the handicapped by the use of "scientifically-developed" assistive devices is underway at The University of Michigan's Medical Center and Research Institute. Investigators hope to design equipment that can be used by large groups of people with similar disabilities. The scope of the research calls for cooperation among doctors, occupational and physical therapists, psychologists, anatomists and engineers.

Speaking before the annual meeting of the American Occupational Therapy Association, Miss Beverly J. Granger, co-ordinator of the project, explained the role of assistive, or orthetic, devices in helping the handicapped. Miss Granger emphasized that "we are first gathering the necessary physical, psychological, social and vocational information required to design, prescribe and use orthetic devices more effectively."

The project, limited to disabilities of the arms, is backed by the Office of Vocational Rehabilitation of the U. S. Department of Health, Education and Welfare.

Director of the project is James W. Rae, Jr., M.D., chairman of the Department of Physical Medicine and Rehabilitation.

* * *

Audiometers to Screen Enlistees and Selectees.—"The Army Medical Service has set a new physical standard which may save the government several millions of dollars in claims each

year," says Colonel Walter H. Moursund, MC, Chief of the Physical Standards Office in the Army Surgeon General's Professional Division.

The new standard requires the use of audiometers to test the hearing of all enlistees and selectees examined at Armed Forces Induction and Examining Stations.

"By better detecting all types of borderline defective hearing," he added, "audiometers will eliminate many of the claims pressed against the Army and Veterans Administration each year, since any defects not detected on the pre-induction examination are assumed to have developed while in the Service."

"At the present time," he said, "most of these examining stations use a whispered and spoken voice test whereby the examinee is tested by his ability to hear an examiner who stands 15 feet away and whispers in different volumes."

Audiometric examinations have been given only when the whispered and spoken voice tests show below normal hearing.

* * *

Award of Merit.—The highlight of the Twelfth Annual Clinic Day at Bon Secours Hospital, Grosse Pointe, Michigan, was the presentation of an Award for Distinguished Service to Richard C. Connelly, M.D. A plaque thanking Dr. Connelly for his loyalty and efforts was given to him on behalf of the Sisters of Bon Secours and the medical staff at a dinner, October 21, 1959, attended by eighty-five members and their distinguished guests, Gordon Scott, M.D., Dean of Wayne State University School of Medicine, W. N. Hubbard, M.D., Dean of the University of Michigan Medical School, and Harry Towsley, M.D., Director of Graduate Education of the University of Michigan Medical School.

Bon Secours Hospital was founded as a hospital for the care of the acutely ill fourteen years ago and Dr. Connelly has been associated with the institution since this beginning. His wisdom and his ambition have been guiding forces for the Sisters and the staff. Because of his consistency of purpose, Bon Secours Hospital has grown, prospered, and become a better hospital. His primary aim always has been the improved care of the patient attained by demanding the best in himself: in his education, in his attitudes, in his conduct, and in his work as a physician.

Adherence to principle, devotion to teaching, and insistence upon excellence have characterized not only Dr. Connelly's own career but have also been an inspiration to all of us at Bon Secours Hospital.

* * *

SAMA—Lakeside Awards.—Medical students, residents and interns have been invited to prepare scientific exhibits to be displayed at the tenth annual convention of the Student American Medical Association in Los Angeles, May 4-8, 1960.

The three exhibits judged most outstanding in both the student and resident-intern categories will win SAMA-Lakeside Awards. The top winners in each category will be further honored by having their exhibits featured at the Scientific Exhibit Assembly of the American Medical Association during the annual AMA convention in Miami Beach, Florida, in June, 1960.

In addition to a prize of $500, and an Award certificate, the top winners will receive an expense free trip to the AMA

convention. Second and third prize winners will receive $250 and $100, respectively, and an Award citation.

Top winners of the 1959 Awards were Conrad Proctor, University of Michigan Medical School, for his exhibit "The Development of Sensory Cell Innervation in the Inner Ear," and Eugene F. Bernstein, M.D., University of Minnesota Medical Center, for his exhibit "Intravenous Aortography."

Applications for the 1960 SAMA-Lakeside Awards should be sent to the Executive Director, SAMA, 430 North Michigan Avenue, Chicago 11, Illinois. Deadline for applications is January 1, 1960. Notification of accepted exhibits will be made February 1, 1960.

* * *

The greatest threat to the control of tuberculosis in Michigan today is the mistaken public impression that tuberculosis is no longer a problem, that miracle drugs have made us all safe from tuberculosis and that we can all now relax.

So said John L. Isbister, M.D., state tuberculosis control officer for the Michigan Department of Health, at the third annual bacteriology seminar at the Lansing Civic Center. The seminar was held October 29-30, 1959, under auspices of the Michigan Society of Medical Technologists and the state health department laboratories.

To show the size of the tuberculosis problem, Dr. Isbister pointed out that tuberculosis causes more deaths in Michigan than all other communicable diseases combined. Last year tuberculosis took the lives of 395 Michigan residents.

Adding to the problem is the fact that tuberculosis costs taxpayers more money for hospitalization than any other disease except mental illness. In 1958, Michigan taxpayers paid between $16 and $17 million for hospitalization of tuberculosis patients—$6 million paid by the state and between $10 and $11 million by the counties. About 3,100 patients are now being treated in tuberculosis sanatoriums.

Between 2,500 and 2,750 new cases of active or probably active tuberculosis are discovered in Michigan each year. On this basis, he estimates there are about 10,000 persons in the state with undiscovered active tuberculosis.

* * *

Norman F. Miller Gynecological Society.—Fifty doctors attended scientific sessions and dinner at the 4th annual meeting of the Norman F. Miller Gynecological Society at the University of Michigan Medical Center Alumni Conference week. The Society is composed of specialists in obstetrics and gynecology who trained at the University of Michigan under Doctor Miller.

Speakers included Allan C. Barnes, M.D., chairman of the Department of Obstetrics and Gynecology, Western Reserve University, Cleveland, Ohio; Willis E. Brown, M.D., chairman of the Department of Obstetrics and Gynecology at the University of Arkansas Medical School, Little Rock; Russell R. DeAlvarez, M.D., chairman of the Department of Obstetrics and Gynecology at the University of Washington Medical School, Seattle; and Richard W. Stander, M.D., of Indiana University Medical School, Indianapolis.

* * *

Aspects of Aging in Mental Health.—The University of Michigan has received $32,000 from the U. S. Department of Health, Education and Welfare to conduct an International Research Seminar on social and psychological aspects of aging in relation to mental health. Director Wilma Donahue

of the University of Michigan Division of Gerontology reports the seminar will be held in San Francisco in August, 1960.

* * *

Research Grants.—The University of Michigan Medical Center is one of fifty-three institutions sharing a Public Health service grant of $3½ million to support the training of research scientists in medical and health-related fields. Funds were allotted to three separate training projects at the University of Michigan. A program in research dermatology directed by Dr. Isadore A. Bernstein received $21,362. Dr. Horace W. Davenport received $3,834 as director of a program in physiology. The sum of $41,040 was given for a training program in embryology and dermatology directed by Dr. James L. Wilson.

* * *

The U. S. Department of Health, Education and Welfare has revised its booklet, "Immunization Information for International Travel." Copies of the booklet may be obtained from Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 30 cents a copy.

* * *

COMING MEETINGS

The White House Conference on Children and Youth will be held in Washington, D. C., on March 27 to April 2, 1960. An attendance of 7,500 is anticipated.

The President's Conference on Occupational Safety will be March 1-3, 1960, at the Mayflower Hotel, Washington, D. C. An attendance of 2,500 is expected.

The Society of Nuclear Medicine is *pleased* to announce the forthcoming publication of its official organ, *The Journal of Nuclear Medicine*. The first quarterly issue will appear during the month of January, 1960.

George E. Thoma, M.D., of St. Louis, has been appointed editor. Associate editors are: Titus C. Evans, M.D., Iowa City; Niel Wald, M.D., Pittsburgh; and Eugene L. Saenger, M.D., Cincinnati.

The editorial content of *The Journal* will be directed toward those members of the medical and allied professions who are interested in the diagnostic and therapeutic application of radioisotopes and in human radiobiology.

Manuscripts and books for review should be directed to the Editor, George E. Thoma, M.D., Southwest Medical Center, 3915 Watson Road, St. Louis 9, Missouri. The annual subscription rate is $10.00, and such requests should be mailed to the publisher, Samuel N. Turiel & Associates, Inc., 430 N. Michigan Avenue, Chicago 11, Illinois.

* * *

Public Health Service Research.—In the fiscal year ended June 30, 1959, Public Health Service distributed grand total of 14,639 awards aggregating $236,522,434. Sums were divided as follows: Research projects, $142,627,730; construction and equipment grants, $32,012,994; training grants, $49,204,409; fellowships, $10,173,979; traineeships, $2,503,322.

Public Health Service announced award of ninety-eight new grants, totaling $3,461,700, to strengthen training programs for research scientists in following disciplines: Surgery,

pharmacology, biochemistry, genetics, pathology, microbiology, microbial and molecular genetics, veterinary pathology, statistics, anatomy, insect toxicology and physiology, embryology and development, pediatrics, obstetrics, cellular biology and dermatology. Universities comprise great majority of the 53 institutional recipients. Grants range in size from $2,160 to $81,324.

* * *

Changing the foreign language requirement for admission to The University of Michigan Medical School was approved by the Regents Friday, October 23.

The former requirement specified a college year's study in French, German, Spanish, Latin or Greek. The new requirement reads as follows:

"*Foreign Language:* All applicants are required to have at least one college year of a foreign language. This requirement may be met either by completing satisfactorily a two semester language sequence in college, or by certification of equivalent achievement in a language proficiency examination."

The change was requested by the Medical School faculty because it is felt that an increasing number of "gifted students" will be presenting language proficiency in Russian and possibly Oriental languages.

* * *

Veterans Administration and Geriatrics.—With the $17.3 million available for support of medical research in current fiscal year, Veterans Administration will put chief emphasis on diseases of the aging and study of the process of aging. Most of the VA hospitals will participate in co-operative investigations of cardiac diseases, mental illnesses, the malignancies and other conditions which assume added importance in an aging population.

* * *

American Cancer Grant.—In a most unusual switch, Uncle Sam is disclosed as the recipient of a cash grant for support of a cancer study project. Agriculture Department announced last week it has accepted $100,000 from American Cancer Society to expand research on avian leukosis. The money will permit enlargement of staff presently at work on this cancerous disease of poultry at Federal laboratories in East Lansing, Michigan.

* * *

Appointment of two assistant deans for the Medical School was approved by the Regents of The University of Michigan Friday (Oct. 23).

C. J. Tupper, M.D., was appointed on a half-time basis and H. Waldo Bird, M.D., was named on a three-eighths time basis, both appointments being effective November 1.

Dr. Tupper's activities as director of the periodic health appraisal program for the University faculty and as director of the consultation services of the University Health Service will be adjusted to permit him to devote half of his time to the assistant dean's post. He will have responsibilities in the general administrative activities of the dean's office.

Dr. Bird will continue as associate professor of psychiatry and will retain his private practice. He will be responsible for student affairs.

* * *

Moses M. Frohlich, M.D., professor of psychiatry in the Medical School, has been granted a sabbatical leave from November 1, 1959 to April 30, 1960. He plans to complete several research projects and also complete a major revision

of the diagnostic manual published by the American Psychiatric Association eight years ago.

* * *

An invitation is extended by the George W. Merck Memorial Loan Fund to deserving interns and residents to apply for financial assistance. The Merck Foundation plans payments totaling $400,000 to participating medical schools.

* * *

Bruce D. Graham, M.D., formerly of Ann Arbor, is the new chairman of the department of pediatrics at the University of British Columbia, assuming that position in November.

* * *

The eleventh annual Symposium on Recent Advances in the Study of Venereal Diseases will be held April 7-8 at the Palmer House, Chicago. Interested physicians are invited to attend the event sponsored by the U. S. Public Health Service and the American Venereal Disease Association.

* * *

F. E. Greifenstein, M.D., Detroit, accepted an invitation this fall to become a visiting professor at two Japanese medical colleges. The invitation to teach at Keio University and Kyushu University was extended by the China Medical Board.

* * *

Harold H. Gay, M.D., Midland, is the new chairman of the State Board of Alcoholism. He succeeds Harlan J. Yelland, of Escanaba, who died in May. Doctor Gay is medical director of the Dow Chemical Company.

Thomas J. Heldt, M.D., Detroit, also is a member of the Alcoholism Board.

During the past twenty years the average length of stay per patient in the hospital has decreased from 12.5 to 8.6 days, reports the Health Information Foundation.

The decline in the average length of stay per patient, reports the Foundation, is very much the result of new medical knowledge, early ambulation following surgery, new medical and surgical procedures and new pharmaceutical products.

In making the study, the Foundation compared data from U. S. Public Health Service studies from 1928 to 1943 with hospital-admission data for July 1957 to June 1958 derived from the Public Health Service's current National Health Survey.

* * *

The fine cooperation of the Wyeth Laboratories made it possible for MSMS Venereal Disease Committee to distribute 3,000 copies of a Wyeth booklet, "Management of Syphilis" by Evan Thomas, M.D., at the 1959 Annual Session.

* * *

One-third of hospital patients now receive antibiotics. That finding was reported by a study of eighty-seven participating hospitals by the Commission on Professional and Hospital Activities, Virgil N. Slee, M.D., director, Ann Arbor. The report was based on a study of 55,000 patients, with the thirty-three smallest hospitals using the most antibiotics, 41.5 per cent.

* * *

William Bromme, M.D., Detroit, told the annual Cancer Workshop at Michigan State University that cancer "quacks" are the greatest ally of the dreaded killer disease. Partici-

pants in the workshop sponsored by the Michigan Cancer Foundation heard Doctor Bromme urge greater cooperation between volunteer workers and physicians. "Knowledge defeats fear, and it is the imparting of knowledge about cancer control by volunteers that will save many people from falling into the hands of cancer quacks," he declared.

* * *

Since their 104th annual meeting will be the first under statehood, the Hawaii Medical Association extends a special invitation to interested Michigan doctors to visit Honolulu May 12-15 for the scientific session. President Toru Nishigaya, M.D., reports that an exceptional program is planned.

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trauma
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of all degrees of
severity up to
that which
requires morphine

AND IN
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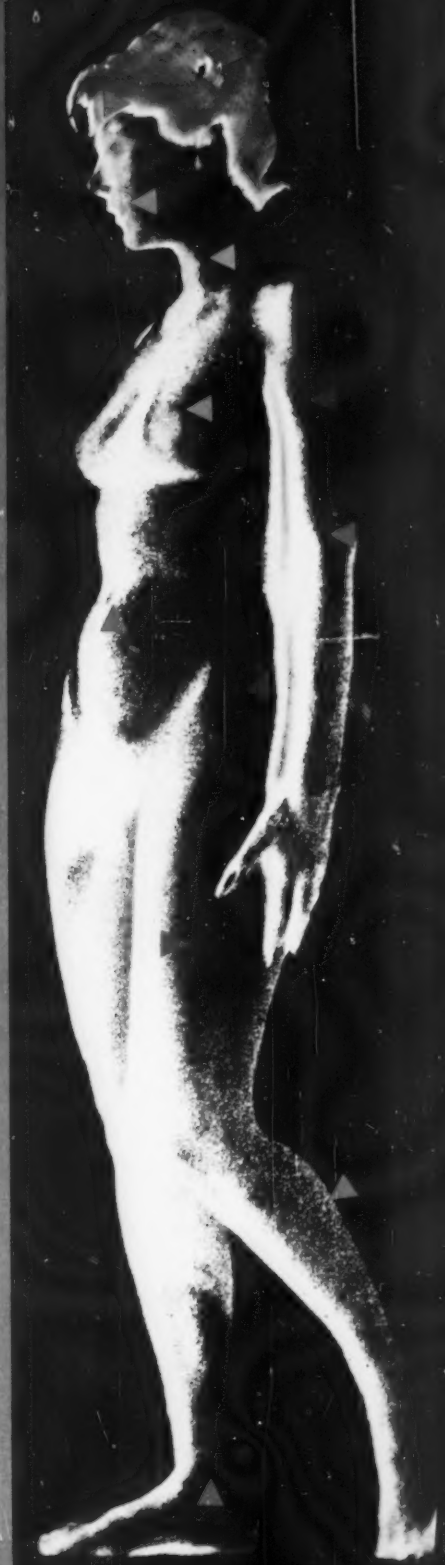
dry,
unproductive coughs



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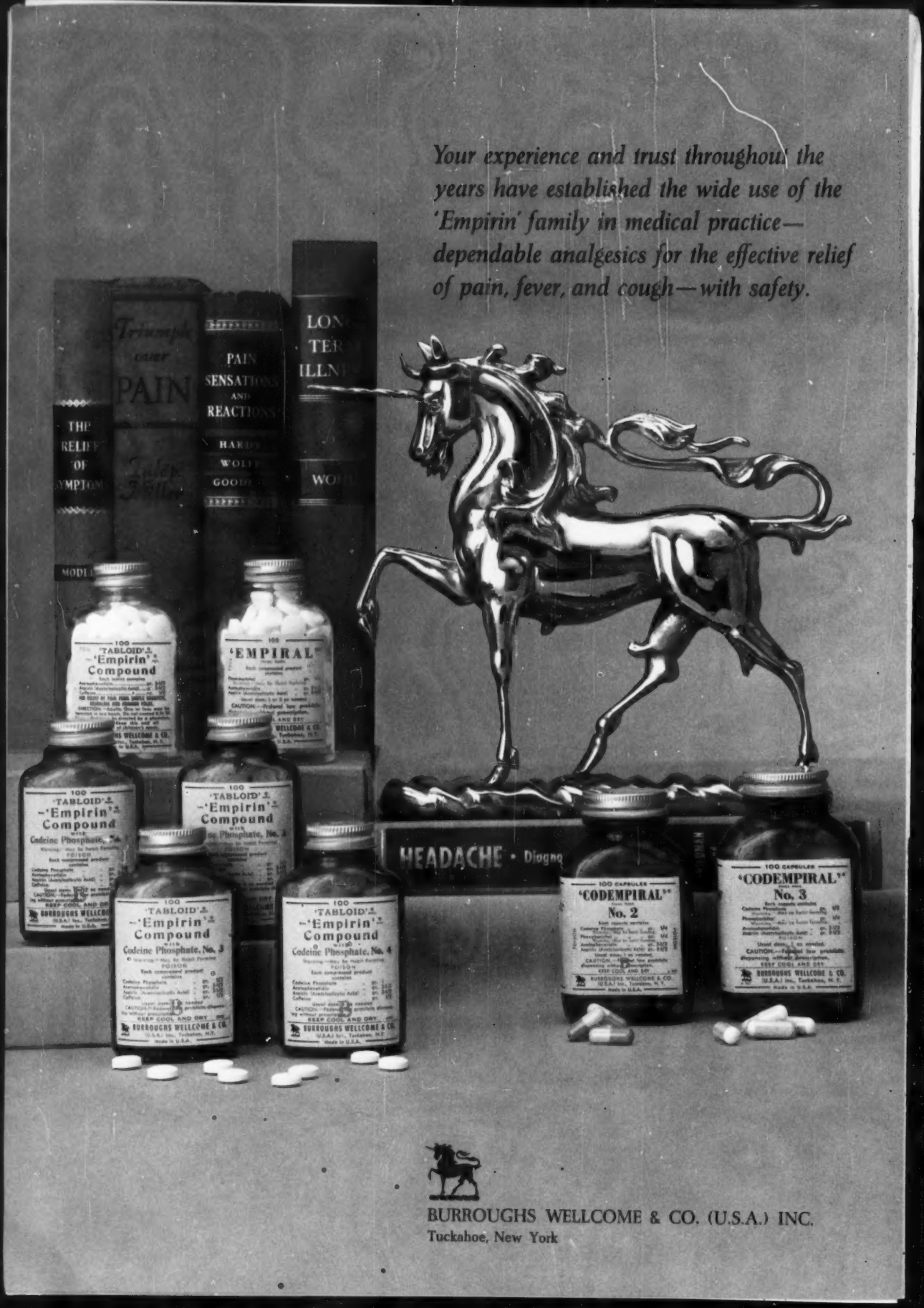
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THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE FOOT AND ANKLE. Their Injuries, Diseases, Deformities and Disabilities. By Philip Lewin, M.D., F.A.C.S., F.I.C.S., Professor Emeritus of Bone and Joint Surgery, and formerly Head of Department, Northwestern University Medical School; Professor of Orthopedic Surgery, Postgraduate Medical School of Cook County Hospital; Attending Orthopedic Surgeon, Cook County Hospital; Senior Attending Orthopedic Surgeon, Michael Reese Hospital, Consulting Orthopedic Surgeon, Municipal Contagious Disease Hospital, Chicago; Colonel, Medical Corps, Army of the United States (Retired). 339 illustrations. Special drawings by Harold Laufman, M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School; formerly Major, Medical Corps, Army of the United States. Fourth edition, thoroughly revised. Philadelphia: Lea & Febiger, 1959. Price, $14.00.

This edition has been considerably revised from the preceding one, especially in the field of trauma where the lessons of World War II and the increasing numbers of traumatic injuries in everyday life have succeeded in some consolidation of the thinking on the management of these problems.

Although useful to any practitioner, the book is most helpful to the general practitioner as its encyclopedic coverage of problems in the foot and ankle, plus a rather didactic approach to therapy, is of most value to one not particularly at home in caring for foot and ankle problems. As such, it furnishes a handy and quick reference.

Congenital, neuromuscular, metabolic and other areas are also covered, in addition to trauma, lest one consider the book is only for the surgeon.

The volume deserves a place in one's reference library.

R.H.A.

THE POWER OF SEXUAL SURRENDER. By Marie N. Robinson, M.D. Garden City, New York: Doubleday & Company, Inc., 1959. Price, $4.50.

This book fills the gap between the strictly medical books on sex physiology and the more common and more numerous anatomical texts on this subject. The author's treatment of frigidity is one of the best written today. The many taboos and false impressions women have passed on through the years are corrected.

The idea of frigidity being due to the male partner or some anatomical deformity is disproved; childhood experiences or teaching are shown to be the basis of many cases of frigidity. This book is more fitting for the already married couples rather than for those who are anticipating marriage and is of prime importance to the female partner. Case histories, together with practical examples, serve as an adjunct to the theoretical material.

J.R.P.

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INTERNIST—Board-eligible 38, family, experienced clinical research, teaching; chief interests cardiovascular, arthritic, geriatric diseases. Prefer Midwest or Southwest individual, small group near medical school. Licensed in Michigan. References, curriculum vitae available. Reply: Box No. 23, 606 Townsend Street, Lansing, Michigan.

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Old Joe was resigned to his fate.

He moaned, "I'm in terrible strait."

"It hurts when I piddle,

Clear up to my middle,

I fear it's my doggone prostate."

But Joe wouldn't throw in the dice.

To his doctor he went for advice.

And now it runs out

Like a real water spout

Says Joe, "It was sure worth the price."

POINT - Prostate

DANGER SIGNAL - Any change in bladder habits.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

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